

Lake Powell Pipeline Project

Draft Environmental Impact Statement

Supplement Number 5

Cultural and Ethnographic Resources:

The Official Southern Paiute Cultural Assessment

Prepared for
Rick Baxter, Nate Thomas, and Zac Nelson
Bureau of Reclamation
302 E 1860 S, Provo, UT 84606

Prepared by
Kaibab Band of Paiute Indians
Southern Paiute Advisory Committee
1 North Pipe Spring Road
Fredonia, AZ 86022

With assistance of
Richard Stoffle
School of Anthropology
University of Arizona, Tucson, AZ

February 20, 2020

Acknowledgements

The Southern Paiute Advisory Committee (SPAC) and Dr. Richard Stoffle wish to thank the tribal governments and tribal councils of the Kaibab Band of Paiute Indians, the Paiute Indian Tribe of Utah, and the San Juan Southern Paiute Tribe for their continued support of the SPAC's efforts. The SPAC and Dr. Stoffle also want to extend their gratitude towards the following researchers at the University of Arizona who have assisted on this project since 2009- Dr. Kathleen Van Vlack, Mariah Albertie, Hector Acosta, Katie Beck, Katherine Brookes, Stephanie De Sola, Jennie Delfs, Philip Dukes, Christopher Johnson, Hannah Johnson, Heather Hyealim Lim, Evelyn Pickering, Christopher Sittler, Daniel Velasco, and Jessica Yaquinto (Savage).

Letters of Tribal Approval

The letters provided in the following pages show how the original ethnographic report produced by the Southern Paiute Advisory Committee officially approved by the Kaibab Band of Paiute Indians, the Paiute Indian Tribe of Utah, and the San Juan Southern Paiute Tribe.

Kaibab Band of Paiute Indians



February 4, 2011

Dr. Richard Stoffle Ph.d
6801 N. Montezuma Dr.
Tucson, Arizona 85718

Dear Dr. Stoffle,

This letter is to inform you of the decision on the finalized draft of the Southern Paiute Ethnographic Study of Lake Powell Pipeline .

The Tribal Council approved the ~~approve~~ the finalized draft of the Southern Paiute Ethnographic Study of Lake Powell Pipeline-Study Plan 23: Ethnographic Resources for Kaibab Band of Paiute Indians, San Juan Southern Paiute Tribe, and Paiute Indian Tribe of Utah for the Lake Powell Hydroelectric System Project No. 12966 – Indian eyes only and that each Tribal Council member get a copy of the final.

If you should have any more questions feel free to contact me at the number below.

Sincerely,



Manuel Savala, Chairperson
Kaibab Band of Paiute Indians

Cc:LeAnn Skrzynski, Environmental
Glendora Homer, Cultural Preservation

Tribal Affairs

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THE PAIUTE INDIAN TRIBE OF UTAH

440 North Paiute Drive • Cedar City, Utah 84721 • (435) 586-1112

Dr. Richard W. Stoffle
University of Arizona
Haury/Anthropology Bldg. Rm. 316
Tucson, AZ 85721-0030

February 2, 2011

Dear Dr. Stoffle,

As we listened with great interest to the report presented by Kathleen Van Vlack at our Tribal Council meeting yesterday, February 1, 2011, it was very clear that the Lake Powell Pipeline project has the potential to damage and destroy a very large amount of Paiute history and culture. This has our people very concerned and we hope you will continue to support us in our efforts to minimize this type of disregard for these valuable assets.

Thank you for the excellent work you and your staff have done in preparing this ethnographic report on that project. We are in full support of the contents of the Southern Paiute Ethnographic Study on the Lake Powell Pipeline project. You have involved many of our people in this production and the vote of confidence at Tribal Council was unanimously in favor of the report.

Cultural sites and artifacts are one by one being destroyed and without protection are in danger of all being lost. What a tragic loss this would be, the history and culture of a people that have lived in this area for thousands of years must not be wiped out for any reason.

Please accept our many thanks for your efforts at identifying this important resource and please also convey our thanks to the many people that helped with the project. We know the budgets for ethnography are rather small and need to be increased. We will continue to request greater support from state and federal sponsors.

Respectfully;

Jeanine Borchardt

Chairwoman – Paiute Indian Tribe of Utah

San Juan Southern Paiute Tribe

Post Office Box 2710 • Tuba City, Arizona 86045

January 27, 2011

Dr. Richard W. Stoffle
Bureau of Applied Research in Anthropology (BARA)
The University of Arizona
Tucson, AZ 85721

Dear Dr. Stoffle,

As the San Juan Southern Paiute Tribe Acting President, I am writing in full support of the Southern Paiute Ethnographic Study and Report regarding the Lake Powell Pipeline Project. If you have any questions or concerns I may be reached at (928)206-2648 or lchoesjsptvp@aol.com.

Sincerely,



Lee Choe
Office of the Vice President
San Juan Southern Paiute Tribe
P.O. Box 882
Tonalea, AZ 86044

Kaibab Band of Paiute Indians

RESOLUTION OF THE GOVERNING BODY OF THE KAIBAB BAND OF PAIUTE INDIANS



K-27-19

Designation of the Kanab Creek Canyon Corridor as a Traditional Cultural District

- WHEREAS,** the Kaibab Paiute Tribe is an Indian Tribe as defined under the Indian Reorganization Act of June 18, 1934, as amended, and operates and functions in accordance with the terms and conditions of the Kaibab Ordinances and Resolutions; and
- WHEREAS,** the Tribal Council is the recognized governing body responsible and authorized by the Kaibab Constitution to exercise all of the powers possessed by the Kaibab Paiute Tribe; and
- WHEREAS,** Kanab Creek canyon stretches from the Colorado River to the Kaibab Indian Reservation and all of the canyon is within the Kaibab Paiute Tribe's aboriginal territory; and
- WHEREAS,** Kanab Creek canyon contains special ceremonial places and elements essential to the practice of Paiute religion, including among others the Ghost Dance site, rock writings on canyon walls that tell the story of Kaibab Paiute people, trails leading from the canyon to the sacred rock standing in the Colorado River known as Vulcan's Anvil, and the sacred funeral songs that travel the Salt Song Trail up Kanab Creek canyon from the Colorado River; and
- WHEREAS,** Kanab Creek canyon is a historic place of refuge and protection for Kaibab Paiute people and contemporary prophecy predicts that Kaibab Paiute people will need to seek refuge in the canyon again in the future; and
- WHEREAS,** Kanab Creek canyon has an integral relationship to the traditional religious and cultural practices and beliefs of Kaibab Paiute people; and
- WHEREAS,** Kanab Creek canyon possesses integrity of location, setting, feeling, and association that the Tribal Council seeks to maintain for future generations of Kaibab Paiute people; and
- WHEREAS,** Kaibab Paiute elders, spiritual leaders, and the Tribal Council recognize Kanab Creek canyon as spiritually and culturally significant; and
- WHEREAS,** in 2008 the Bureau of Land Management recognized the cultural importance of Kanab Creek canyon to the Kaibab Paiute Tribe when it specially designated

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13,148 acres in and around Kanab Creek canyon to the south of the Kaibab Indian Reservation as an Area of Critical Environmental Concern; and

WHEREAS, Kanab Creek canyon contains a high concentration of traditional properties that are culturally and spiritually linked, such that the canyon constitutes a traditional cultural district as contemplated by the National Historic Preservation Act, its implementing regulations, and the National Park Service's guidance known as Bulletin 38; and

NOW THEREFORE, BE IT RESOLVED BY THE TRIBAL COUNCIL OF THE KAIBAB BAND OF PAIUTE INDIANS AS FOLLOWS:

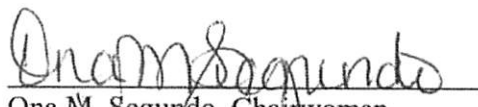
The Kaibab Paiute Tribe declares and designates Kanab Creek canyon as a traditional cultural district of spiritual and cultural significance to Kaibab Paiute people; and

BE IT FURTHER RESOLVED AS FOLLOWS:

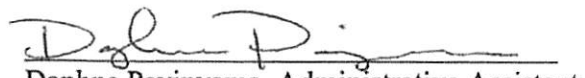
The necessary steps shall be taken to clearly define the boundaries of the Kanab Creek canyon traditional cultural district and to nominate the district for listing in the National Register of Historic Places.

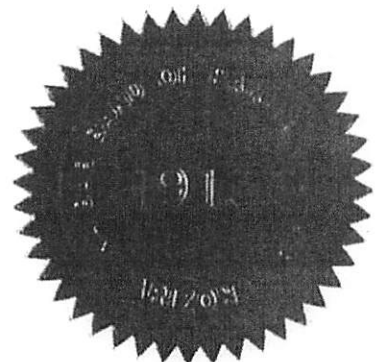
CERTIFICATION

I hereby certify that the foregoing resolution was regularly adopted by the Kaibab Paiute Tribal Council on **May 16, 2019** at a regular meeting at which a quorum was present with **(5) in favor, (1) absent, (0) abstaining, and (0) opposing**, pursuant to the Authority vested in the Kaibab Paiute Tribal Council of Article VI, Section 1 (a) of the Kaibab Constitution and By-Laws ratified by the Tribe on June 20, 1987 and approved by the Secretary of the Interior on July 14, 1987 pursuant to Section 16 of the Act of June 18, 1934.


Ona M. Segundo, Chairwoman
Kaibab Paiute Tribal Council

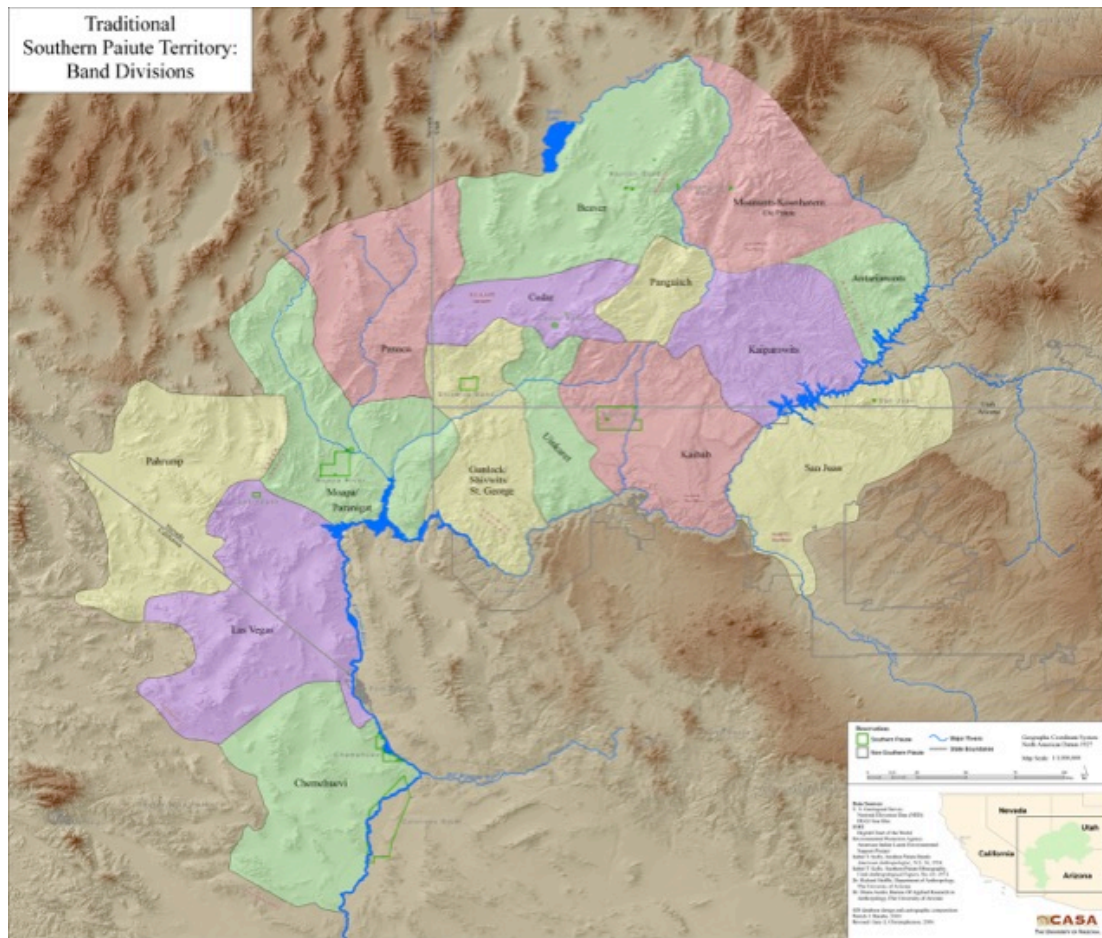
Attest:


Daphne Pavinyama, Administrative Assistant
Kaibab Paiute Tribal Council



Chapter One: Introduction

The Southern Paiute Advisory Committee (SPAC) stipulates that the Creator placed Southern Paiute people in their homelands at least 12,000 years ago. According to Southern Paiute origin narratives, the Creator made Southern Paiute people the sole owners and caretakers of these lands (see Map 1.1). Southern Paiute oral histories describe how Southern Paiute people attest to how they have always resided in these lands. These histories categorically rejecting the notion that their people emerged elsewhere, only to arrive in their lands at some later point in time. Southern Paiutes are also the federally recognized aboriginal inhabitants of these lands per the ruling of the Indian Claims Commission (Indian Claims Commission 1928: Chapter 310).



MAP 1.1 TRADITIONAL SOUTHERN PAIUTE TERRITORY

Because these lands are part of traditional Southern Paiute territory, all Native American sites located within Southern Paiute territory, unless identified and agreed upon by all Southern Paiute tribes as belonging to others should be defined as Ancestral Numic. The SPAC requests that all Native American sites located within traditional Southern Paiute territory be referred to as Enugwuhype or Ancestral Numic. The Enugwuhype period refers to the time period from Creation to 100 years ago.

From a heritage and Southern Paiute perspective, the proposed pipeline puts important cultural places and resources at extreme risk. Some places have special resources, such as particular kinds of medicine plants that need to be gathered at that location. Other places are linked to world balancing ceremonies, time keeping, and traditional healing. If these places were destroyed by pipeline construction, the cultural value and useful benefits would be lost forever. These places could never be rebuilt or relocated to other places in traditional Southern Paiute territory.

Even though the legal ownership of much of traditional Southern Paiute lands has shifted to the United States government, the moral, spiritual, and cultural stewardship responsibilities for these lands remain in the hands of Southern Paiute peoples, as well as other Numic people such as the Ute tribes. In this report, Paiute people share portions of their knowledge so they can remain in a stewardship capacity in order to advise on moral, spiritual, and cultural matters that affect their traditional lands.

1.2 Southern Paiute Places of Cultural Significance

Southern Paiute places and resources of cultural significance are found throughout the LPP study area. These Paiute cultural elements include but are not limited to archaeological resources, ethnobotanical resources, ethnozoological resources, ethnogeological resources, visual resources, acoustic/tonal resources, astronomical resources, and supernatural/metaphysical resources. These types of resources can be found at specific locations and landscapes and contribute to the overall cultural importance of the traditional homeland.

During the Southern Paiute ethnographic studies in 2011, 2012, and 2017, the SPAC visited 52 sites that the committee members identified as areas of critical cultural concern. Subsequently, eleven of these sites were declared sacred sites under Executive Order 13007 by the Kaibab Band of Paiute Indians and the Paiute Indian Tribe of Utah, and seven were determined to be eligible to be listed in the National Register of Historic Places as TCPs, defined by National Register Bulletin 38: Guidelines for Evaluating and Documenting Traditional Cultural Properties of Historic Places. The remaining sites continue to be of cultural concern to the Paiute people.

It is important to understand the 52 sites, places, and landscapes visited during the three ethnographic studies represent a small number of culturally sensitive places and landscapes found throughout the LPP corridors. The SPAC therefore stipulates that there are culturally sensitive places located throughout the entire length of the proposed Lake Powell Pipeline corridor. These culturally sensitive places vary in terms of their size, ranging from small local archaeology sites, to large lineal pilgrimage trails, to even larger cultural districts.

1.2.1 Sensitive Areas

All identified sites are considered culturally sensitive areas. Southern Paiute people, their culture, and their traditional bio-physical environment are intimately intertwined. Paiute cultural identity, spirituality, laws, traditions, and ceremonies are connected to and often arise from their long term and complex relationships with this traditional bio-physical environment. A loss of traditional lands thus equates to a loss of identity and culture (Ehrlich 2012). Areas of cultural importance, therefore, require protection.

1.2.2 Sacred Sites

Sacred Sites are special Federal designations that can be assigned to special places located on federal or tribal lands by a tribe declaring a location a sacred site. When such an action occurs, the tribe is affirming the cultural and religious importance of the site to their community. In Executive Order 13007, the term Indian Sacred Site is defined as follows:

"sacred site" means any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site.

1.2.3 Traditional Cultural Properties

The National Register of Historic Places Bulletin 38 defines a Traditional Cultural Property (TCP) as an area “that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community’s history; and (b) are important in maintaining the continuing cultural identity of the community,” (Parker and King 1991:1). For Native American groups, a location must be associated with origin narratives, cultural history, or ceremonial activity to be considered for a TCP nomination. One of the four following criteria must be met for inclusion of an area into the National Register of Historic Places (Parker and King 1991):

1. Association with events that have made a significant contribution to the broad patterns of our history.
2. Association with the lives of persons significant in our past.
3. Embodiment of the distinctive characteristics of a type, period, or method of construction.
4. History of yielding, or potential to yield, information important in prehistory or history.

The SPAC stipulates that TCPs are a kind of cultural resource. This stipulation is based on previous environmental impact assessments and cultural resource studies with Southern Paiute and other Numic-speaking people, which clearly define Native American cultural resources (American Indian Writers Subgroup 1996).

1.2.4 Traditional Cultural District

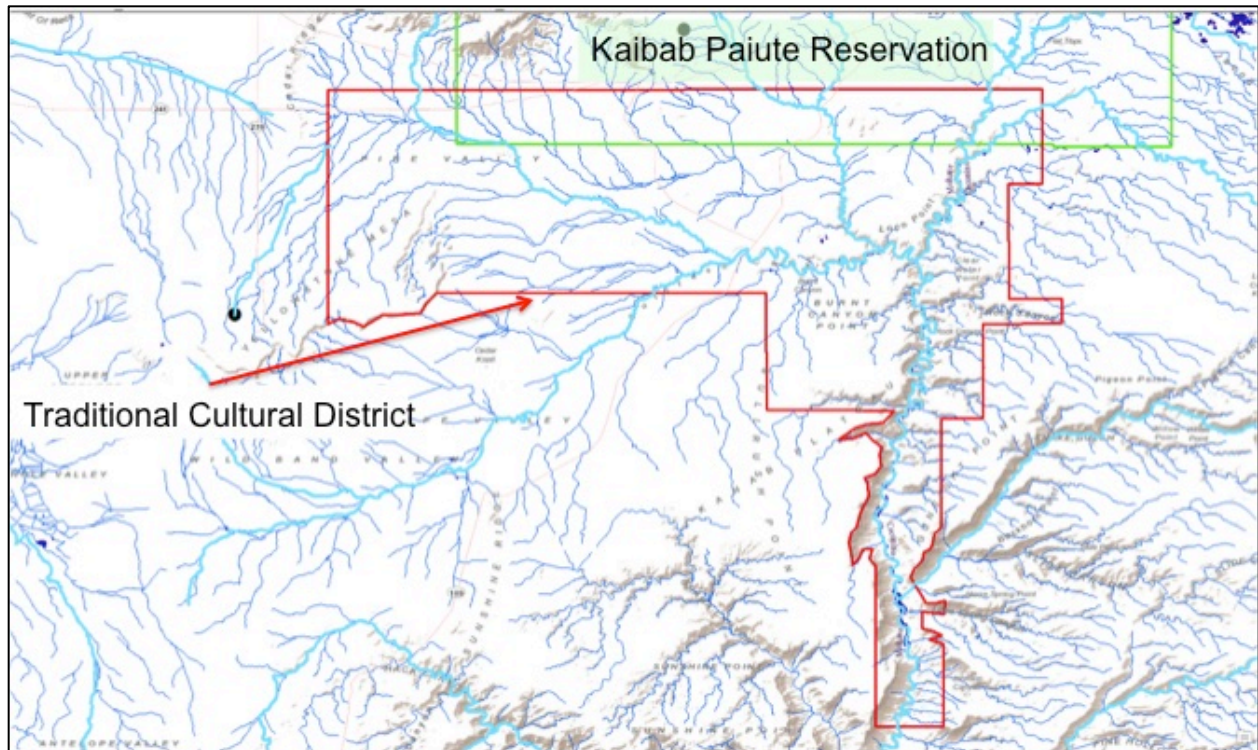
A Traditional Cultural District (TCD), a type of TCP, is defined as a collection of properties comprising a culturally significant entity. It is the rarest type of cultural resource found in the LPP study area. A district is a unified entity that usually consists of historically, functionally, or archaeologically related properties. Examples of districts include groups of habitation sites, rural villages, and transportation networks (Parker and King 1998). Thus, there are historic districts, archaeology districts, and TCDs, with the latter being the focus of this section. A TCD normally

contains areas of critical cultural importance, sacred sites, and TCPs. Together these each contribute to the importance of each TCD component and the TCD itself.

The SPAC in coordination with the Kaibab Band of Paiute Indians prepared an eligibility determination for a TCD which encompasses a cultural region located along and including the southern portion of the Kaibab Paiute Reservation. This effort began when the Kaibab Paiute Tribe sent an official letter to John Eddins of the Advisory Council on Historic Preservation (ACHP) requesting help with the TCD nomination. The letter was sent December 15, 2015. The logical foundations of that letter contained many of the same arguments that were detailed in the Badger-Two Medicine TCD discussion (Zedeño and Murray 2014).

The Kaibab TCD extends from Jacob Canyon in the east, Yellowstone Mesa in the west, to Hack Canyon to the south, and at the start of Kanab Creek Canyon in the north (See Map 1.2). The Kaibab Band of Paiute Indians passed a tribal council resolution (K-27-19) on May 16, 2019 in support of the TCD nomination and declared it potentially eligible.

The Kaibab Paiute TCD is a multi-layered cultural landscape that does include places associated with time keeping ceremonies, portals to other spiritual dimensions, vision questing, and large-scale balancing ceremonies such as the Ghost Dance. This TCD also contains an area that was historically used as a region of refuge by the Kaibab Paiute people during the late 1800s. This region of refuge is tied to a contemporary Southern Paiute prophecy as a place they must return to during a period of extreme hardship. Many of the TCD places can be seen from elevated points in the immediate area. Such high points have been, and continue to be, used for vision questing, the coordination of ceremonial activities, and spiritual renewal, thus making the viewsapes from these locations, critical components of this cultural landscape. Puha, a Paiute term for spiritual energy, is associated with all of these areas and natural resources. A number of special rock shelters are understood as portals to spiritual dimensions and some are used for space travel. The TCD contains ceremonial areas used by Southern Paiute religious leaders whose activities resulted in ritual deposits, known burials, and rock pecking and painting panels. The TCD contains petrified wood used in medicine and ceremonial white mineral deposits used for rock and body painting. In addition to the ceremonial components, there are a number of natural resource use areas that contain traditional Southern Paiute home sites and agricultural fields.



Map 1.2 Kanab Creek Traditional Cultural District

All of the places in the TCD are interconnected, thus creating a cultural landscape that has Puha and cultural significance. Pilgrimage trails that cross the proposed TCD traverse large swaths of traditional territory and thus help create a cohesive culturally significant entity. It is a high priority to maintain the cultural integrity of these spiritual and physical trails. The places and resources found within the TCD boundary continue to hold meaning and cultural importance to contemporary Southern Paiute people today. The Kaibab Paiute Tribe has declared this bounded cultural area as eligible as a TCD for the National Register of Historic Places

1.3 Summary of Remaining Chapters

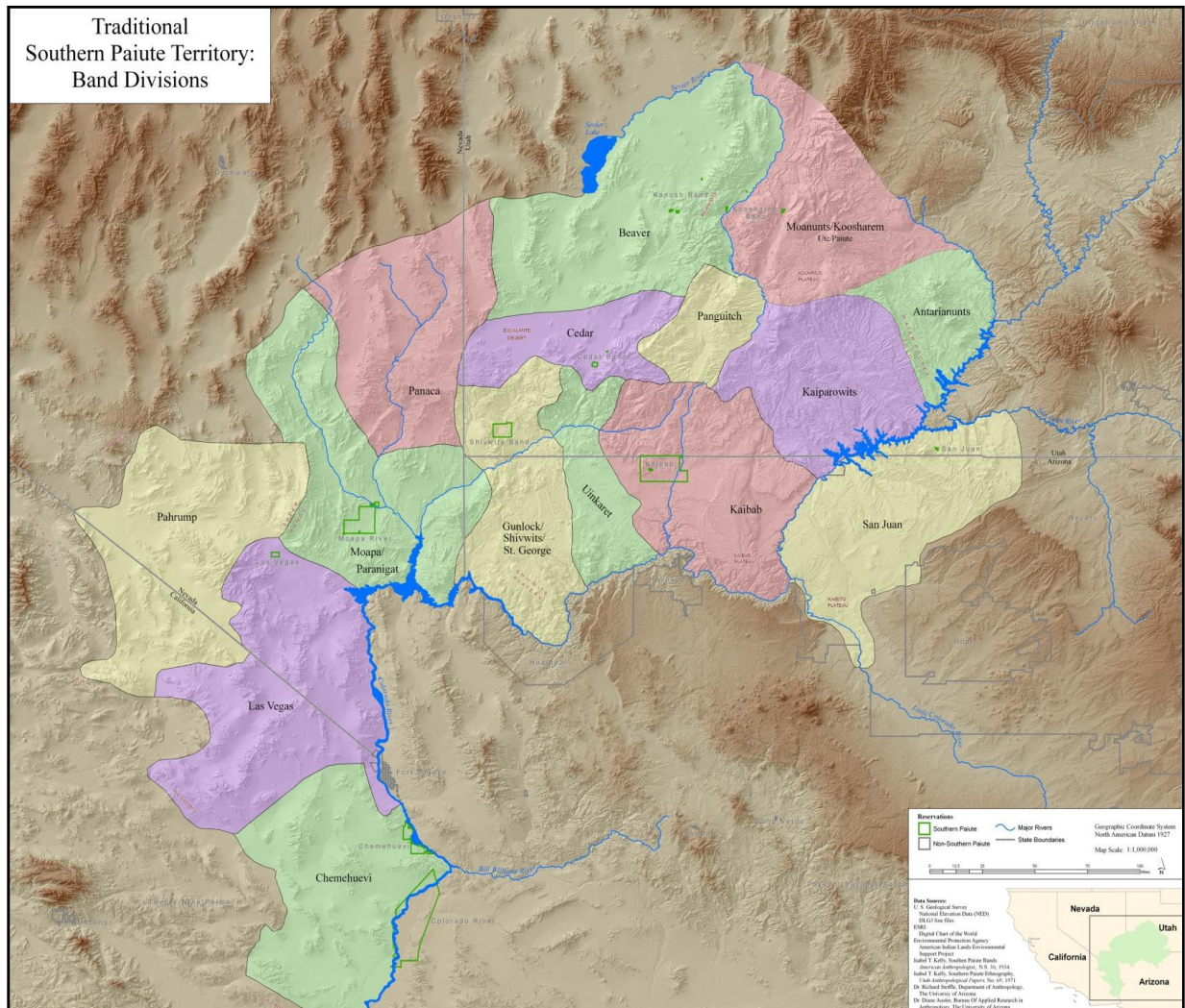
Following this executive summary, this report contains three chapters which present the Southern Paiute connections to places found along the proposed LPP corridor. Chapter Two is the official SPAC statement regarding Southern Paiute cultural affiliation. Chapter Three provides a discussion of project methodology and SPAC activities since 2010. Chapter Four provides a summary of key findings regarding culturally sensitive places and landscapes that would be potentially impacted by LPP construction.

Chapter Two

The data and analysis presented in this chapter are more broadly understood as being focused on Southern Paiute ethnogenesis. By this, we follow the definition of Jonathan Hill (1996:1, cited in Fowler 2007:428) who notes that cultural anthropologists use the term ethnogenesis to describe the historical emergence of a people who define themselves in relations to a sociocultural and linguistic heritage. For such a people there is usually some sort of oral or written canonical text defining a place and a process of emergence that sets these people apart from others. This chapter follows the various lines of arguments as they have been presented in the book *Zuni Origins* (Gregory and Wilcox 2007) and in a published article entitled *Historic Memory* (Stoffle and Zedeño 2001), which initially provided academic arguments in support of Numic people's ethnogenesis (origin) stories.

Archaeologists in the twentieth century tended to focus on finding scientific proof that could connect archaeological periods (usually having simple names like Anasazi, Sinagua, Hohokam) with contemporary Indian people. When scientific proof was not available, archaeologists either invented a logical connection or assumed there were no contemporary descendants. As Indian people gained more power in the latter part of the twentieth century, some archaeologists began to incorporate American Indian oral-history based claims of being the descendants of people who lived in an archaeological period, into cultural affiliation discussions. Today, the heritage and biological connections of contemporary people with places, artifacts, and human remains is understood as very complex and difficult to resolve into simple yes or no answers. Thus, archaeologists and Indian people now bring together Indian stories, DNA testing, pottery clay sourcing, and other kinds of data in an effort to move towards a better resolution of the question —Who today is related to the heritage of the past.

This chapter presents the foundation arguments for the above stipulation made by the Southern Paiute Advisory Committee that Southern Paiute people were created in the lands defined by the Federal Government as being their aboriginal lands (see Map 2.1). The arguments discuss the following topics: (1) oral testimony and Holy Lands, (2) historic memory, (3) Southwest agricultural complex, and (4) ethnic frontiers. These foundation arguments are followed by a re-analysis of the archaeology of Gypsum Cave in Nevada using the assumption that the materials could have been left by Paiute people over thousands of years of ceremonial activity in the cave. The chapter ends with a discussion of key points and some new arguments.



Map 2.1 Traditional Southern Paiute Territory

2.1 The Southern Paiute Advisory Committee Position

The Southern Paiute Advisory Committee has major concerns regarding the use of terminology such as Fremont, Anasazi, Virgin River Anasazi, Kayenta Anasazi, Archaic Indian, Paleo-Indian, and Pueblo. They find these terms offensive and inaccurate because they believe that these Anglo-American terms do not properly reflect the original inhabitants of these lands. The Kaibab Paiute Tribe (as have many others) have repeatedly expressed a concern of over-using archaeological terms, which imply false, unproven cultural affiliation between archaeological sites and contemporary American Indian tribes.

The Southern Paiute Advisory Committee asserts that Southern Paiute people were placed in their homelands by the Creator at least 12,000 years ago. According to Southern Paiute origin stories, the Creator made Southern Paiute people the sole owners and caretakers of these lands (Map 2.1). Southern Paiute oral histories describe how Southern Paiute people have always lived on these lands and how Southern Paiute people have never arrived from someplace else. Southern Paiutes are also

the federally recognized aboriginal inhabitants of these lands per the ruling of the Indian Claims Commission.

Because these lands are part of Southern Paiute territory, all Native American sites located within Southern Paiute territory, unless identified and agreed upon by all Southern Paiute tribes as belonging to others, should be defined as Ancestral Numic. The Committee requests that all Native American sites located within traditional Southern Paiute territory be referred to as Enugwuhype or Ancestral Numic. The Enugwuhype period refers to the time period from Creation to 100 years ago.

2.2 Oral Testimony: Argument One

2.2.1 A Personal Connection to *Nungwuh Tuhveep* (Paiute Homeland) By Vivienne Jake, Kaibab Southern Paiute

When I stand on the mesa looking into the great expanse of the land, I think of the old ones and how they must have been so caught up with their daily tasks of living, and yet, making certain that the far reaching site of their homeland needed their attention too. In our part of this Earth Mother lays what is now referred to as the Colorado Plateau.

We sadly look upon it from that same mesa top today and see it dwindling away replaced by a strange form of life that is beset on dozing off the mesa tops and replacing the aesthetic quality and experience with their large mansions, golf courses, industrial sites, and such. The influx of a different kind of people coming with their differing views and values, make it very difficult to remain connected. Our spirituality and natural surroundings have been discarded to the wayside for their benefit, as they continue to forget the first people of this land.

Whatever man might plan and think to make of our homeland, isn't always in our best interest. Our ties to the land will always be there. After all, our culture, beliefs, lifeways and identity lie deep within the land. Our ancestors roamed this land before we did, held it, protected it and depended on it for their survival. Today, we continue to revere it because of their dedication and their teachings. Acknowledging that we are spiritually connected to it will never cease.

My personal connection to Nungwuh Tuhveep is confirmed through oral history and genealogical relationships and teachings of the ancestors who came from four directions:

From the north (in Kanosh, Millard County, Utah) lives the Pikyavit Family, of which my paternal grandmother Minnie Pikyavit was a member; in addition to the Pikyavit family was the Huncups (or Ahng-kaap meaning Red One) the clan included Clara or Ah-yah-vee-ya, mother of Roy Tom, and her older brother Isaac lived in the same community as the Pikyavits;

To the northeast (within the Henry Mountains and Escalante, Garfield County, Utah) lived my maternal grandfather, Yubnubvuts or Johnny Dick; His wife, my maternal grandmother, Mollie, raised her children in Orderville, Kane County, Utah; Yubnubvuts was later espoused to Tabck or Maggie because Mollie became old and frail needing a lot of care. History and other records show Tabck as Maggie Dick.

To the south (within the Kaivavuts (Mountain Lying Down), Arizona's Coconino and Mohave Counties) region lived my paternal grandfather, Toomb or Jake whose children were all raised on the land encompassing the Kaibab;

Toward the west of this great expanse (the Paragat Valley in Southern Nevada) lived my other paternal grandfather Pahnabab or Panaca Tom. My mother's father, Chaneen or Roy Tom, son of Panaca, was raised in the Hamblin and Eagle Valleys of Iron County, Utah who later became enrolled with the Paiute band within Indian Peak (Iron County, Utah).

In the discussion of Cultural Affiliation, my claim, therefore, should never be construed as one location, one people, or even one region. It must be remembered that my ancestors lived within this homeland long before any regional, state, county or township boundaries ever existed. They were shoved around and displaced once their country was discovered and the federal government helped to make it available to others. You know, squat down, get rid of those who are there. Claim their water, land, natural resources and destroy them for who they are.

In these modern times, when so little value is placed on the significance of attachment to Nuwuh Tubveep, remember me and others who care, who know, that our stewardship of the Earth Mother, is our dedication to preserving its pristine conditions for the betterment of the future for the Native American children still unborn. We want them to experience the breathtaking views from atop the mesas and appreciate that there were those individual tribal members who fought for the Earth Mother, proclaiming their moral and spiritual ties to her.

At some point in time, all the selfish greed manifested in the name of development has got to stop and slow down otherwise life as we know it will cease and/or we will all be left scavenging around to survive. Un-ni-samp.

2.2.2 Sensitive Lands “A Tribal Perspective” By Calvin Meyers, Moapa Southern Paiute

The Creator had put us on this land, land that you call Southern Nevada. He taught us to keep the land sacred and to keep it healthy. We were also taught the ways to heal ourselves and others. These teachings are what we practice today; it is our way of life. All lands are sensitive and sacred and should be treated with respect. Some parts of the land give us food while other places give us medicine. If these lands are destroyed or contaminated, they will not provide for us the things that we need. Some health problems cannot be healed by your western medicine, yet this land provides us the medicine to heal those health problems. This land is sacred and also provides ways for us to travel in safety. I've seen instances where the land had provided my family with a safe journey. I have used medicine from this land and seen how much this medicine works.

We are not the only creatures that this land provides for. The creatures that live in this area, not only on the ground but in the sky and in the water, the land provides for. The plants are also residents of this land. All of these things are alive also the land is alive, and it breathes just the same as you and me. Without these creatures and the plants, we would be without food, medicine, and shelter. We would not be provided with even the clothes that we had worn, in the past.

2.2.3 Southern Paiute Holy Lands

*** *The following recounts a winter story. The Southern Paiute Advisory Committee requests that this story should only be read during the winter months (from the time of the first snow fall to when the reptiles come out of hibernation).*

Southern Paiute territory was far more to these people than an economically utilized region. It was their Holy Land in as much the same sense that Palestine is the Holy Land of Christians, Jews, and Muslims (Spicer 1957:197, 212-214). It was the portion of earth where they had been created. Southern Paiute Creation stories that have been recorded, albeit in abbreviated forms, resemble Christian Genesis and other myths in terms of placing the people on the earth.

According to Southern Paiute belief, originally there was only water. Ocean Woman (Hutsipamamaun) (Sichompa Kagon in Fowler and Fowler 1971:78) then created dry land (Laird 1976:148-149). Once there was land, Creators Coyote and Wolf lived on Charleston Peak in the Spring Mountain Range located in Southern Nevada -- Nüvant (Kroeber 1908:240) or Nivaganti (Laird 1976:151) or Nuvagantu ("it has snow") (Stoffle and Dobyns 1983).

Creator Coyote later saw the tracks of a woman (actually Ocean Woman), but when he caught up with her, she was a louse (Poo?wavi). Coyote propositioned her, and she agreed if he would build them a house. He ran ahead, built a house, and when Louse caught up, she magically put Coyote to sleep, and continued on. This happened four times before they reached the Pacific Coast. Louse set out to swim to her home island with Coyote on her back. She dived under water, and Coyote let go and turned himself into a water-spider. He reached the island first and was waiting for Louse when she arrived. Louse's mother wove a large basket while Coyote enjoyed Louse (Kroeber 1908:240; Laird 1976:149-152).

The old woman sealed the basket and gave it to Coyote to tow back to land. As a water spider, he did so. As Coyote, he found the basket growing heavy, and full of curiosity, opened it before reaching Nuvagantu. Louse's eggs had hatched in the basket, and human beings scattered in all directions over the land. By the time Coyote returned to Nuvagantu, only weaklings, cripples, and excrement remained in the basket. On Charleston Peak, Wolf used his greater power to create the Southern Paiutes (Kroeber 1908:240 says Coyote; Laird 1976:151 says Wolf), the ingredients accounting for their dark skin color. So Nuvagantu (Charleston Peak) and the Spring Mountain Range are, in comparative perspective, holier to Southern Paiutes than Mount Ararat is to Christians.

Logically, Nuvagantu remains sacred to Southern Paiutes (Stoffle et al. 2009) and the entire Spring Mountain Range shares the sacredness of the high peak. The summit of Nuvagantu rises higher than any other peak between the Sierra Nevada in California, and the San Francisco Peaks in northern Arizona (Kroeber and Kroeber 1973:44-45 n. 55). Dramatic views of the high snowcapped Nuvagantu serves to remind all Southern Paiutes that they remain within their tribal Holy Land. According to Larry Eddy, the religious leader for the Chemehuevi Southern Paiute people, the Spring Mountain range is a powerful area that is centrally located in the lives, history, and minds of Nuwuvi people. The range is a storied land which exists as both physical and mythic reality, both simultaneously connected by portals through which humans and other life forms can and do pass back and forth. This is as it was at Creation (Stoffle et al. 2009).

2.3 Historic Memory: Argument Two

The expanded argument has five main data-based components: (1) humans societies can retain memories of critical events for thousands of years, (2) Numic people do not remember conquering previous peoples in the Great Basin and western Colorado Plateau, (3) Numic people do not remember being created somewhere else, (4) Numic people's neighbors do not remember being conquered by Numic people and (5) their neighbors do not claim to have been created within Numic territory.

2.3.1 Comparative Perspectives on Historic Memory

Humans can remember for long periods. They remember where they come from and who they are. They remember critical events like great floods and star bursts. They remember where they were created. If they move (or migrate) to a very different ecosystem they remember the move and the painful process of learning how to succeed in a new homeland. For example, Keith Basso's book, *Wisdom Sits in Places* (1996) documents how Western Apaches not only record stories, teachings, and events by attaching them to a landscape feature and giving it a meaningful name, but also how they order this knowledge chronologically, to preserve the history of changes in their interaction with the landscape, from the time they arrived in the White Mountains of Arizona to the time they finally reached settled life.

Our colleagues in the Bureau of Applied Research in Anthropology (BARA) at the University of Arizona remind us that oral history is much more than words. The late Emory Sekaquaptewa (a Hopi lawyer and tribal judge) said that for the Hopi, oral history is behavioral performance tied to symbols, music, singing, and place; it is not about telling campfire stories to children but about teaching them how to organize their everyday life.

James Greenberg (a Jewish anthropologist) says that Jewish history is encoded in ritual. Both agree with Keith Basso in that wisdom sits in places, indicating that performance and landscape often are closely connected. So, if a people remain in their creation lands, they will continue to remember who they are, where they came from, and what has happened to them. If they move, they remember where they were and how they came to be where they are now. A reading of the literature on historic memory documents the following:

The Welsh People

The Welsh National Museum in Cardiff, Wales, displays the contemporary Welsh view of their past. The Welsh acknowledge that their prehistoric origins may date as early as 250,000 years ago, coinciding with the first known evidence of human occupation of cave sites. Below one of the more recent portions of a chronological display is a case that describes in words, maps, and paintings an oral history event. About 4,000 years ago, the Welsh people specially quarried blue stones from southern Wales and transported them to a place we know today as Stonehenge, where ceremonies

were held. According to this display, this well-known and documented Welsh oral account has been supported by archaeological evidence.

The Jewish People

The history of the Jewish people is encoded and transmitted in ritual. For example, according to authoritative rabbis, the revolt of the Macabees is encoded in the rituals of Chanukah. The Passover meal commemorates with specific foods particular events. The enslavement of the Jews in Egypt (3100 B.P.) and their exodus is symbolized by: (1) bitter herbs representing the bitter treatment of the people; (2) saltwater representing their tears; (3) charoset meaning the mortar and bricks they used in constructing pyramids and cities; (4) hard boiled eggs indicating sacrifice; (5) the lamb shank representing the Passover by the angel of death, and (6) unleavened bread (matzo) symbolizing their rapid exodus from Egypt. Other ceremonies remember the building of the first temple (2850 B.P.), and the Babylonian captivity (2586 B.P.). Although a portion of these events was recorded in writing, Jewish people maintain that these have been and will be remembered forever through the performance of the rituals.

The Cuba of Zaire

Another of our BARA colleagues, Mamadou Baro (a cultural anthropologist from West Africa), relates that the Cuba people of Zaire remember events that occurred approximately 2,500 years ago, including the development of irrigation systems and the people who controlled them. Even today, Zaireans talk about this period as a positive example of how they had highly complex systems of social organization that compared favorably with those found elsewhere, including Europe.

The Aymara of Bolivia

Archaeologists Karen and Sergio Chavez (1998) involved the Aymara communities directly in the process of identifying, excavating, and preserving 2,000-year-old temples on the edge of Lake Titicaca. Once they were partners in the Yaya-Mama Religious Tradition Archaeology Project, members of the Aymara communities identified the location of the sacred sites and described what would be found during the excavation. After the excavation, the Aymara re-sanctified the temples and asked that they be left open so that traditional ceremonies could be practiced there.

The Mohegan Nation of Connecticut

Archaeologists working in partnership with the Mohegan Nation of Connecticut documented a cabin site that potentially would be impacted by a construction project. In 1997, tribal elders were able to identify the location of the site even though there was no surface indication of a structure. Furthermore, they remembered the name of the person who owned the cabin in the 1690s, 300 years earlier. Subsequent archaeological excavation found the cabin and colonial land ownership documents verified the name of the Indian owner (Bendremer 1998).

The Hopi People

The core area of contemporary Hopi lands was occupied by the *botsinsa*, the Hopi term for their oldest ancestors, by A.D. 700, and the region was fully colonized by A.D. 1100 (Adams 1982; Gumerman and Dean 1989). Oral history indicates that contemporary Hopis have a memory of not only these earliest ancestors but also the clans who began to arrive at the Hopi Mesas at about A.D. 1300 (Courlander 1987; James 1990). These later clan movements coincided with the various population relocations that occurred after the Great Drought, A.D. 1263-1299 (Zedeño 1997). The later clan migration episodes occurred during the Pueblo revolt of 1680 (Rushforth and Upham 1992; Whiteley 1988) and after the 1780 smallpox pandemic.

The Ojibwa of the Western Great Lakes

Over a period of more than 500 years, ancestral Ojibwa bands migrated to the west from the ocean. Today, the Ojibwa people remember that they came from the salt ocean, that they moved along the Saint Lawrence Seaway, and that their spiritually guided migration ended at Madeline Island near Ashland, Wisconsin (Cleland 1992). They remember where they stopped along this migration, and today are culturally attached to those places. They remember the people they replaced (who also remember being replaced by the Ojibwa), and see that replacement as a critical part of their history.

Our point here is clear. If people worldwide, including American Indians, can remember historical events further back in time than the hypothesized Numic Spread into the Great Basin and Western Colorado Plateau, then why do the Numu and their neighbors not remember this colonization? If conventional theories are true, then the recent memory of a late arrival should remain alive in their oral history. By the same token, it is highly unlikely that the Numic people would forget their place of origin, were it from somewhere outside this area.

2.4 Southwest Agricultural Complex: Argument Three

Southern Paiutes did farm. When they learned to farm, we do not know for certain, but they were optimal farmers when the Europeans arrived. The question which merits detailed archaeological investigation is, how long did they have to farm to develop optimal irrigation systems? For example, the ancestors of contemporary Zuni (or the A:shiwí) experimented with their farming technology, especially the locations of fields and later flood water irrigation systems, for at least 500 years before the arrival of Europeans (Anyon and Ferguson 1984; Ferguson 1995; Ferguson and Hart 1985). Damp (2007:118) argues that Zuni origins are the result of changes in agricultural production that began some 3,000 years ago. So, the ancient Zuni required many centuries and perhaps thousands of years to produce optimal water control and dispersal systems that permitted the establishment of a sustainable and fully sedentary population (Ferguson 1995:6). Once optimized, this system continued to be responsive to changes in climate and soils.

When the Europeans arrived, the Southern Paiutes had optimal irrigation systems. Farming had been practiced along the Colorado River and the Colorado Plateau for several centuries. Sometime during this period, Southern Paiute developed optimal water dispersal and irrigation systems. The complexity of these systems suggests that they were developed over hundreds and perhaps thousands of years.

Some of the cultigens associated with farming, especially corn, had mythic time origin stories. When Paiute people were interviewed by John Wesley Powell in the 1870s, he recorded a story called Corn Is Brought to Earth (Fowler and Fowler 1971: 96-97) which recounts how *Sinauav* (the Creator) tested a young boy and when assured he was trustworthy gave the boy some seeds of *Kumaa* (Indian Corn) and sent him on his journey. Eventually the seeds were planted and some seeds were kept for next year's planting. The people tended the new plants, watched their growth, and kept away insects and any animals that might destroy them. When tamun (autumn) came and the corn was ripe the people gathered together and held a great festival and danced the *Kumaa wepa* or corn dance. That is how *Kumaa* was brought from beyond the skies and made a part of Southern Paiute life.

Clearly in this origin story, *Kumaa* was given to the Paiute people through the intentions and actions of the Creator. When interviewed 140 years ago by Powell, Southern Paiute people did not attribute the origin of *Kumaa*, corn husbandry, or *Kumaa wepa* to Europeans or diffusion from another people. Corn was given by *Sinauav* to his people and with this gift came the responsibility to care for the plant, the land on which it was grown, and the water needed for life. It is also important to realize that *Kumaa* derived from human-plant interactions occurring about 7,000 years ago and both the seed and appropriate agricultural practices spread across North America thousands of years before Europeans arrived. According to Fish (2004:135), throughout the Southwest, environmental locations that proved most favorable for agriculture were persistently occupied by cultivators after the inception of farming. People did not give up more secure ways of living. Fish (2004:136-154), in an analysis entitled *Corn, Crops, and Cultivation in the North American Southwest*, concludes that the Southwest Agricultural Complex includes ritual ceremonies and mythic origin explanations. Accounts of the supernatural bestowal of corn on a favored human group are universal. Cultigens are at the heart of rich, agriculturally orientated ideologies.

2.4.1 Aboriginal Farming—1776

The Southern Paiutes were first encountered by European explorers at the end of the eighteenth century. Earliest mention of Southern Paiute homesteads and farms along a watershed of the Colorado River is found in the observations of fathers Escalante and Dominguez in 1776 (Bolton 1950). When the expedition crossed the boundary of the Great Basin into the upper portions of the Virgin River watershed on the western Colorado Plateau, it met Southern Paiute farmers who held ears of corn in the air as a sign of greeting.

The next day, October 15, 1776, Escalante continued to sing the praises of the area now affectionately referred to in Utah as Dixie. At a place along Ash Creek in the upper portion of the Virgin River drainage, the expedition found a well-made mat, and on it a large supply of ears of green corn. Nearby in the plain and along the river bank the small fields of maize had very well-made irrigation ditches (Bolton 1950:95). For this reason, Escalante noted:

We felt especially pleased, partly because it gave us hopes that we should be able to provide ourselves farther on with assured supplies, but principally because it was evidence of the application of these people to the cultivation of the soil, and because of finding this preparation for reducing them to civilized life and to the Faith when the Most High may so will, for it is well known what it costs to induce other Indians to do this, and how much their conversion is impeded

by their dislike for this labor, which is so necessary for a civilized life, especially in pueblos.
(quoted in Bolton 1950:95)

Thus, the Fathers were pleased at finding a pueblo-like people who were already close to civilization as indicated by their farming practices.

2.4.2 Jedediah Smith Farming Observation—1826

Jedediah Smith was a trapper and explorer who traveled through much of central portion of traditional Southern Paiute territory in 1826 with a crew of more than thirteen men and a large remuda of horses. He kept a reasonably complete diary in which he carefully documented his journey and especially various areas of Paiute farming (Brooks 1977). It should be pointed out that his observations were in the fall, thus some evidence of farming and other kinds of horticulture were missing. For example, when the party reached the Santa Clara River there was evidence of previously harvested cornfields; this led Smith to name the river Corn Creek (Brooks 1977:57 n. 53).

After providing evidence that the Smith party was friendly, a dozen Paiute men approached bringing in their hands an ear of corn as an emblem of peace. Smith was relieved because “as provisions was our greatest present desire, we were much pleased to hear that they had corn and pumpkins close at hand,” (Brooks 1977:58) and in sufficient surplus to permit trading food for goods with the party.

While camped along the Santa Clara, Smith traveled about a mile upstream from his camp to visit various Indian lodges and see how they farmed. He observed that:

Their little corn patch is close on the bank of the creek for the convenience of water. The Creek is dammed about and the water is conducted in a trunk to a place where it can be spread over the surface. For a hoe they use a piece of wood 3 in Broad and 4 feet Long. The pumpkins and corn were not quite ripe. (Brooks 1977:59-60).

Traveling to the south, the Smith party arrived on the Muddy River (Moapa River) near where it meets with the Virgin River. There Smith observed that “[there] was several Lodges of Indians like those on Corn Creek. They had corn (which was gathered) Pumpkins squashes and some small green watermelons. I soon purchased some pumpkins and squashes and encamped,” (Brooks 1977:63).

It is important to note that the Smith party did not purchase corn probably because they had purchased a surplus from the Paiutes living along Santa Clara (Corn Creek) a few days before. Smith also observed a large quantity of rock salt in the village which was from the nearby sacred salt cave. He noted that Mojaves from the Cottonwood Island area traveled to this area to trade items for ceremonial salt and red ochre.

From the Muddy River area, Smith and his party headed south towards the Colorado River. Once they reached the river, he documented an Indian family who was practicing flood water irrigation farming. According to Smith, “They had pumpkins squashes and beans growing on a small spot of alluvial soil on the riverbank. I purchased of the different kinds and he showed me where he had

wheat sown on rather planted in the hills 20 or 30 grains in the hill,” (Brooks 1977:67) (Grammar errors in the original text). Again, the farmer had sufficient surplus to offer some for purchase to the Smith party. It is also the first observation of the imported cultigens such as wheat being grown by the Paiutes. Note this farmer had already adapted a flood irrigation system to accommodate the new crop.

2.4.3 Santa Clara River—1852

When the Mormons first colonized the area, Southern Paiutes had already been farming all along the *Tonaquint* or Santa Clara River in southwestern Utah. Paiute people were utilizing “irrigation dams and ditches and were also farming on smaller irrigable benches on the upper creek and its tributaries, as well as at springs on the Santa Clara watershed,” (Stoffle and Zedeño 2001:232-233).

Population and Irrigated Acreage

In 1852, Mormon elder John D. Lee wrote a letter to the editor of *Deseret News*, in which he reported having seen some 100 acres of land under cultivation by Southern Paiutes along the Santa Clara River:

The Santa Clara River is 1 rod wide and 20 inches pure, clear water-rich bottoms, though narrow, and heavily timbered for the distance of 30 miles. On this stream we saw about 100 acres of land that had been cultivated by the Pintes [sic] Indians, principally in corn and squashes; and judging from the stocks, the conclusion would be that heavy crops are and can be raised in these vallies. This tribe is numerous and have quite an area of husbandry (Lee 1852) (Spelling errors in the original).

In 1854, a party of Mormon colonists left Fort Harmony and explored the Virgin River downstream to the mouth of the Santa Clara River and then up the Santa Clara. This party reported that there was a village about one mile upstream from the confluence of the Santa Clara and Virgin Rivers, and a large population center some six miles further upstream from the village. The Santa Clara Paiutes were farming extensively near this population center. The party also found smaller villages and associated agricultural fields dotted along the upper course of the Santa Clara River. Before Mormons began colonizing the region, the local Indian population was diverting the flow of the river and using the water for crop irrigation at several places along the Santa Clara. The Mormons observed small fields—up to 10 acres each—all along the floodplains of the Santa Clara River. Presumably, each of these fields was the farm of an individual family or group of closely related families. The diary of Thomas D. Brown states that:

There was good crops of wheat ripe in some places which they were cutting and using, and abundance of corn, many beans, and a green substance between the rows which we stooped and wished to pull out, till they told us it was part of their food. Some 10 acres are cultivated here, and as many or more at the settlement below this, indeed all along this river are small Indian

patches of 2 to 10 acres cultivated. And some of the missionaries have visited other portions of these bottoms and say there are many more small patches uncultivated (Brooks 1972:57).

The logical inference is that Brown's mention of "uncultivated patches" is a reference to fields the Paiutes left fallow or allowed to revert to natural vegetation. This eyewitness account calls small fields "small Indian patches." So, "small patches uncultivated" presumably refers to old fields. The village near the mouth of the Santa Clara River was described by Brown: "... The road this morning was on the west bench rolling and level bottoms of the Rio Virgin, on the Tornaquint we came to a fine lot of wheat nearly ripe. Still much fruit 'ope'..." (Brooks 1972). He goes on to describe the area and local farmers:

This point viz. nearly at the mouth of the Santa Clara seems an old settlement, as there are many corn lots abandoned, for the same reason I had formerly supposed— the roots. This place seemed more comfortable to me, than any place we had come to. Crops living & many human beings, they were much afraid especially the Squaws and children. (Brooks 1972:53)

After supper, some of the party left their camp to visit another nearby village the Mormons called, "Matuprenup's" wickiup — there we found some 8 or 10 men and 2 squaws only, and a nantsits'— female child— they were in great fear (sherreah) when we approached" (Brooks 1972:53-54).

Here the Mormons were fed with "wheat & seed flour porridge & berries" and also given "homemade wine" in a "large spoon made of the horn of a mountain sheep that would hold about a pint" (Brooks 1972:54). Another female "pishamon" was drying the heads of green wheat in the ashes, this they had pulled while yet in the milk, they dried it sufficiently hard "the heads tied up in small bunches that when taken out of the husks they could rub the wheat from the husks and thus prepare it for grinding into flour... There appears many patches of good wheat land on this stream" (Brooks 1972:55).

The Mormon party appears to have been impressed with the density of the population as they traveled up the Santa Clara River and with the extent and quality of the Indian fields and crops. Eyewitness Mormon accounts from 1854 state that "about 7 miles up this river we found a Central point more extensively peopled & farmed the finest wheat I have seen in these vallies [sic], and much farther forward than here or farther north" (Brooks 1972:68). Jacob Hamblin's diary also notes the extensiveness of Indian farming on the Santa Clara River: "we encampt on the St. a clara the 10 of June 1854 here the Pieds had quite extensive fields of wheet [sic] and corn" (Little 1969:20). The Mormons estimated that the central village on the Santa Clara River had a population of some 250 men, not counting women and children:

The next day the company camped near the present town of Santa Clara. Here they found a large camp of Indians, the men numbering about one hundred and seventy-five it was found, in a day or two, that there were two hundred and fifty men belonging to this Camp (Bleak 1928:17-18).

Most of the women and children were hiding until the Indian people were sure the Euro-Americans would not kidnap them and sell them as slaves. Altogether, the Mormons estimated that the villages in the Santa Clara area under the leadership of Chief Tutsigavits had a population of some 800 persons (Bleak 1928:17-18). The Mormon reconnaissance party also found farming settlements along the upper reaches of the Santa Clara River. At one of these villages the local leader Macooveooks reportedly pressed the Mormons to baptize his men. The Mormons obliged, baptizing eleven men. Near the village the Mormons saw an irrigated cornfield and a wickiup camp atop a —very high mountain, beyond the access of man or beast, (Brooks 1972:63-64).

In 1857, a Mormon traveler recorded that “Jackson, a chief of the Paiutes,” met him on the upper Santa Clara River some fifteen miles above Fort Clara (Martineau 1857). Five miles upriver his party met another band led by Chief Kahbeets. Kahbeets invited the travelers to camp near their village and the travelers purchased food:

Their chief, Kahbeets ... insisted on our stopping with them. We accordingly camped, the natives assisting in taking care of our animals, roasting corn for us and inviting us to help ourselves to their corn, some 5 acres of which stood close by (Martineau 1857).

Here again, Southern Paiutes were apparently producing enough food to offer some for sale to travelers. This reflects both entrepreneurship and horticultural production on a sufficient scale to leave a surplus after meeting their own needs.

Water Management for Irrigation and Flood Control

The Santa Clara Paiutes used dams and canals for irrigation and flood control before Euro-American colonization of the area. Eyewitness accounts document this early in the nineteenth century, and it is acknowledged by Mormon historians. An article by historian Andrew K. Larson notes —the first irrigation in Washington County was carried on by the Indians who lived here before the advent of the Whites (Larson 1950:36).

A letter by Richard Robinson, member of the 1854 missionary party, records that the Indian people of the Santa Clara River had dams: —They make dams and have water sects, which they make with sticks, which are formed something like a canoe paddle (Robinson, quoted in Brooks 1950:29).

Members of the 1854 Mormon party were taken to see a large dam and irrigation works constructed by the Indian people of the Santa Clara River near the main center of population. Thomas D. Brown recorded in his diary that after a meeting with about forty Indian people, most of the Mormon party accompanied Chief Tsatsegoup to see the improvements made on the Indian irrigation ditches. They saw a dam across the Santa Clara that was “3 rods” or 48 feet long, feeding into an irrigation canal about three-fourths of a mile long. This canal cut as deep as ten feet at some points along the grade and was constructed with aboriginal hand tools. Brown apparently included a sketch in his diary, illustrated in Brooks (1972:57):

1) being the banks of the river, 2) the dam and 3) the course of water, from 2a, a water ditch or irrigating canal runs for 3/4 of a mile, round the base of rocky mountain in some places cut & worn from 6 to 10 feet deep, all this accomplished with their hands and small sticks, no other implements being among them. There was good crops of wheat ripe in some places which they were cutting and using, and abundance of corn, many beans, and a green substance between the rows which we stopped and wished to pull out, till they told us it was part of their food.

Jacob Hamblin recorded in his diary that in June 1854, during the first few weeks of the Mormon colonists' presence on the Santa Clara River, an Indian dam near the main Santa Clara settlement broke and that he helped repair it: "—the next Day thare dam brock away. I helpt them repare it [sic]," (Little 1969:22). It is interesting to note that when Elder George A. Smith visited the Santa Clara River in 1857, he reported:

...there were thirteen Indian dams across the stream above the Santa Clara Fort (Smith 1861). Smith criticized traditional Indian irrigation practices as wasteful of water. However, his criticism serves to document the large effort the Indian people put into constructing their irrigation works. It also documents the extensive use they made of the river's water for irrigation. Smith (1861:1) said that —they irrigated the land by just simply turning on the water, and letting it run to great excess, washing and wasting a great deal of soil. Smith went on to note that the colonists at Fort Santa Clara were teaching the Indian people —to irrigate in a way to avoid the waste of water occasioned by irrigating in their slovenly manner\ (Smith 1861:1) ... It is possible that Smith and other Mormons overlooked the importance of irrigation water for plant species other than domesticated field crops. The Mormon party saw irrigation works on the upper watershed at the village of Macooveooks. They also saw an irrigation canal roughly half a mile in length on the Virgin River at the village of Chief Toker (Brooks 1977), (Stoffle and Zedeño 2001:235).

The Mormons noted there were many beaver dams along the Santa Clara River. The coexistence of beaver dams and Southern Paiute farming along the lower Santa Clara River suggests that the Santa Clara Southern Paiutes let beavers perform some portions of the dam construction and maintenance in the Indian water management system. As Mormons colonized the Santa Clara, they eliminated the beavers, their dams, and their labor. Nellie Gubler notes that at the time the wife of Thales Haskell was shot by a young Indian man, Haskell was "away up the creek taking out beaver dams," (Gubler 1950:154). Elimination of the flood control provided by beaver dams was probably one of the causes of the series of disastrous floods that swept away much of the rich bottomland after Mormon colonization began. In any case, the close association of Indian farms and beaver dams suggests that the presence of beaver dams was an intentional part of aboriginal water management strategy. This association is suggested in the eyewitness observation of Thomas D. Brown: "There appears many patches of good wheat land on this stream, across which Beaver dams are built every few rods, & the banks being low, the water overflows much & renders the bottoms good grazing patches" (Brooks 1972:55).

Wild plant species formed an important part of the Southern Paiute diet. Water management that spread the flow of the river and retained the topsoil optimized growing conditions for desirable wild plant species as well as for domesticated crops. Within the Southern Paiute subsistence strategy, planting and irrigation of domesticated plants (including maize, beans, squash, amaranth, and chenopods) shaded into irrigation of undomesticated plants growing wild in the cultivated fields

(including *Mentzelia*). Irrigation of wild plants in the cultivated fields transitioned into irrigation of stands of wild plants (berries, wild seed grains, greens) as a result of dams across the river.

Analysis

Most of the Southern Paiute fields along the Santa Clara River and elsewhere were irrigated by stream diversion into primary canals and field laterals. Southern Paiutes adapted their irrigation technology to a variety of environmental conditions in their diverse habitat. The Santa Clara River was small enough that Southern Paiutes could successfully dam it and divert its waters. At peak flow, the Santa Clara River sometimes damaged the Southern Paiutes' dams, but they repaired them or built new ones. As noted above, Hamblin watched the Indians repair a dam in 1854 (Little 1969).

On the Colorado River the volume of flow was too large to permit Native American diversion. Instead, Southern Paiutes cultivated some of the sandbars after the spring season floods (Brooks 1977:67; Laird 1976:23; Powell 1957:103; 108; Euler 1966:81). Additionally, springs were used for inland irrigation. Spring flows are physically easier to divert and manage. Southern Paiutes diverted water from many springs throughout their territory to irrigate crops (Lyle 1872:84, 85, 90; Lockwood 1872:75).

In 1848, Mexico ceded its northern territories (a region that included the aboriginal holy lands of the Southern Paiutes) to the United States by the Treaty of Guadalupe Hidalgo. Some of the travelers whose reports we have cited traversed Southern Paiute territory as early as 1776 and 1826, long before the Mexican Cession. Others saw pre-conquest Southern Paiute agricultural use of Santa Clara waters in the year 1848, before the signing of the treaty by Mexican and United States representatives. Thus, when the United States gained nominal jurisdiction over the Santa Clara basin in 1848, the Southern Paiute inhabitants already had rights (under the terms of the Treaty of Guadalupe Hidalgo) to continue diverting Santa Clara water with a legal priority date from time immemorial. Other travelers traversed the Santa Clara from 1849 to 1854, before Euro-American colonization of the Santa Clara began, and during the earliest phase of Mormon colonization. All of the cited travelers described Southern Paiute use of Santa Clara River water for indigenous agriculture. Southern Paiutes continued to farm along the Santa Clara in the following decades, though the scale of their farming operations was curtailed by Euro- American encroachment. Colonists who displaced Indian farmers took advantage of the prepared fields in prime agricultural land, thus obliterating most evidence of aboriginal cultivation.

2.4.4 Farming Communities in Pahrnagat—1864

About ninety years after Escalante's journey, William Nye spent the winter of 1864 in the Pahrnagat Valley in southeastern Nevada. In his chronicle, he described this yet unexplored valley as —an Indian paradisell blessed with fertility and abundant water in an otherwise arid region. Nye observed where the Southern Paiutes kept patches of melon and corn on land irrigated by snowmelt streams (Nye 1886:295):

In the valley, Chief Pab-Witchit headed a community of some 200 individuals. The Chief asked Nye, "What for you come to our country digging up stones? and your ponies eating up the grass

in the valley, and next summer, perhaps, destroying our corn and melon patches” (Nye 1886:295). Nye observed that the Pahranaḡat Paiutes stored the corn they produced for the winter.

2.4.5 Farming Everywhere—1871

Another expedition headed by Lieut. George Wheeler for the United States government made a similar observation about Paiute agriculture. In 1871, while traveling from the Owens Valley in California to southern Nevada, Wheeler arrived in Ash Meadows just north of Death Valley and thus entered the western boundary of Southern Paiute territory, where he observed:

We found plenty of excellent grass and water, the latter from warm springs... I then moved southward and crossed a low range into another sandy and gravelly desert, (Pah-rimp Desert,) which extends south for miles, and skirts the Spring Mountain Range. This desert contains several beautiful little oases, the principal one being at Pah-rimp Springs, at which point are located quite a number of Pah- Ute Indians, very friendly and quite intelligent. These Indians raise corn, melons, and squashes. Great quantities of wild grapes were found around these springs, (Lyle 1872:84).

In the 1870s a few years after Wheeler passed through Southern Paiute lands, a U.S. Geological Survey expedition headed by Major J. W. Powell and G. W. Ingalls also found Paiute farmers. According to these observers “all Pai-Utes subsist in part by cultivating the soil” (Fowler and Fowler 1971:98); they commented on the well-developed regional sociopolitical organization and the High Chief system, which was recognized by different Southern Paiute bands in the area. Powell and Ingalls also found a people who had extensive knowledge about their landscape, ranging from geography and botany to astronomy (as indicated in part by the vocabularies Powell collected). In his writings, Powell elegantly captured the nature and strength of the relationship between the Southern Paiutes and their homeland:

An Indian will never ask to what nation or tribe or body of people another Indian belongs to but to —what land do you belong and how are you land named? Thus the very name of the Indian is his title deed to his home... His national pride and patriotism, his peace with other tribes, his home and livelihood for his family, all his interests, everything that is dear to him is associated with his country, (Fowler and Fowler 1971:38).

Powell even recorded a Paiute poem written about Pahranaḡat Valley with the title “The Beautiful Valley” (MS 831-c, in Fowler and Fowler 1971:125). Like Powell, Nye (1886:294) was impressed with the poetic faculty of the Indian dwellers in this valley of the mountains.

Paiute farming in Pahranaḡat was so prevalent that the official state history of Nevada documented at Crystal Spring at the head of Pahranaḡat Creek, a Southern Paiute irrigation canal eight feet wide and six feet deep ran for several miles in 1880 (Angel 1881:186).

2.4.6 Hunters and Gatherers—1900

By the early 1900s, however, anthropologists had adopted a position that defined all Great Basin and western Colorado Plateau people as non-farmers and socially ranked among the simplest people on the planet (Stoffle et al. 1982:110). Both A. L. Kroeber and J. Steward wrote of Paiutes and Shoshones as though they were simple, and quite frankly not very smart. They perceived (or needed to perceive, to make their theories work) the Numic people as dominated by their environment. In *Handbook of the Indians of California*, Kroeber (1925:582-583) concluded that Great Basin Paiute culture is: (1) rude, too flexible to be elaborated; (2) having monotonous simplicity; (3) un-integrated into broad cultural patterns; and (4) interesting only because of its poverty.

Kroeber (1925) further concluded that (1) these people have a scant population, (2) move to the dictates of the environment with (3) makeshift subsistence, (4) are intermittently idle, and (5) have little occasion to use their imagination. Such discounted perceptions of Numic peoples persisted in Steward's *Theory of Culture Change: the Methodology of Multilinear Evolution* (1955), where he characterized them as having a family level of sociocultural integration – a position not supported by either his own data or that of his first Ph.D. student, Omer Stewart (1980). According to Stewart, Paiute people are like “living fossils,” exemplifying what human society must have been like tens of thousands of years in the past before the advent of agriculture, cities, and any of the cultural traits that defined civilization.

Documentation of irrigation by Indian farmers by the earliest Euro-American travelers clearly shows that Southern Paiutes used river water for agricultural irrigation long before Euro- American colonization of the Holy Land began. Accounts of the early travelers also document that Southern Paiutes were expanding their cultivation before colonization. This shows their ability to adapt their farming operations to the demands of trade and commerce.

2.5 Ethnic Frontiers: Argument Four

In a classic analysis of ethnic groups and boundaries, Frederick Barth (1969) noted that while many ethnic groups in the world have clear boundaries, many others do not. Barth went on to describe what we call “ethnic co-residence” or the practice by distinct ethnic groups of sharing territory, resources, and communities. Such co-residential locations can be found deep within each group's territory as well as along the boundary itself. While exclusive rights to, and enforcement of, ethnic-specific land and resource use may have existed among these groups, such rights were generally exercised over specific localities and unequally distributed resources rather than over a continuously bounded space (Zedeño 1997:71). These co-residential patterns were far more common in aboriginal North America—both among mobile and sedentary groups—than is usually acknowledged (Sutton 1985).

American Indian ethnic co-residence is increasingly being recognized by archaeologists, ethnohistorians, and historical linguists (e.g., Cameron 1995; Reid and Whittlesey 1997; Shaul and Hill 1998). A recently revisited case is that of the late prehistoric Hohokam in southern Arizona. The traditional thinking of the Hohokam as a homogeneous, distinctive desert people (Haury 1976) has

given way to a far more complex view of this society as multiethnic; this view is supported by archaeological remains (Elson 1998); ethnohistoric documents (Zedeño and Stoffle 1996a); and historical linguistics (Shaul and Hill 1998). It also accords well with contemporary views held by the O'odham tribes (Pima and Papago) and by two Western Pueblos (Zuni and Hopi) who were consulted by the National Park Service regarding their cultural affiliation to Hohokam remains at Casa Grande National Monument in Arizona (Zedeño and Stoffle 1996b). This is only one example of research that formulates historically, linguistically, and ethnographically informed hypotheses and arrives at equally informed archaeological interpretations. Such research efforts have been cited recently by archaeologists who are beginning to doubt the currency of overly conservative approaches to reconstructing the American Indian past (Goldstein 1998; Kelly 1998).

One of the most important implications of new research involving American Indians revolves around how archaeologists conceptualize and measure diversity. We propose, based on mainstream Western scientific perspective of Southern Paiute prehistory, that views favoring homogeneity over broad cultural areas are held when there is insufficient knowledge of an area or a people. As more detailed research is conducted and scientists build interdisciplinary and cultural bridges, a far more complex, rich, and diverse picture of a people's past emerges. This is an obvious observation that nonetheless must be made explicit to better understand the deficiencies and misconceptions that have plagued Western notions of Southern Paiute culture and society. As stated earlier, depictions of Southern Paiutes have been heavily influenced by evolutionary culture area generalizations that lumped them with other Numic groups, thus masking their historically specific developments while delaying a study of co-residential interactions. Although interethnic interactions probably were common to all Numic groups, these were particularly intense among Southern Paiutes living side-by-side with other ethnic groups, including the Hopi and the Hualapai. Furthermore, their proximity and traditional attachment to the Colorado River and its upper canyons likely placed them into contact with people from as far as New Mexico and California, who customarily made pilgrimages to the river shrines and collected resources along its banks. The extent to which co-residence and long-distance interaction among ethnic groups led to specific cultural developments remains to be fully investigated. Here we mention only two obvious connections that are known both scientifically and traditionally.

2.5.1 Hopi and Paiute Connections

Historical linguistics has long demonstrated that the Southern Paiute and Hopi ancestral language derived from the Uto-Aztecan Shoshonean families—they both spoke mutually intelligible language or even the same language (Sapir 1930). This evidence is supported by oral traditions indicating that some Hopi clans arrived at the Hopi Mesas in Arizona, that is the Snake Clan and Horn Clan, came from the north and west, most probably from the upper Colorado River area (Courlander 1987; Fewkes 1897; James 1990). Additionally, Paiute and Hopi share almost identical clan origin stories and particularly snake creation stories. A careful examination of the Basketmaker III – Pueblo I prehistoric occupations in Black Mesa (Powell 1983; Gumerman and Dean 1989) may reveal that these small, semi-sedentary family groups lived under conditions resembling Southern Paiute settlement systems far more closely than those developing at the same time in the eastern Pueblo area. Research along the Moapa and Virgin Rivers (Lyneis 1996) and in Nye County, Nevada (Winslow 1996), also indicates that the westernmost Pueblo ancestors and the Paiute-Shoshone ancestors interacted with each other. One piece of evidence for this interaction is the fairly common occurrence of Pueblo I-Pueblo II Tusayan Whiteware (Black Mesa Black-on-White) and Tusayan

Grayware pottery in southern Numic sites. These are just examples of connections between Hopi and Southern Paiute groups along their territorial boundary. Given that both ancestral groups were relatively mobile, it is likely that they shared territory and resources. We have confirmed that this interaction occurred in the Grand Canyon (Stoffle et al. 1994).

In *Big Falling Snow*, the Hopi elder and author Albert Yava (Yava and Courlander 1992), records that at Hopi there are two clans who arrived from the north from the Colorado River area. According to Yava:

Up at Tokonave, Black Mountain, which the white people decided to call Navajo Mountain, there was a village known as Wuhkokieken, and there were people who spoke some dialect of Paiute. As yet, those people hadn't selected a clan emblem for themselves. After awhile another group from out in California somewhere, a place they called Taotoykya, arrived at Wuhkokieken and were accepted into that village. They also spoke some dialect of Paiute. The first bunch were the ones that came to be known as the Snake Clan. The second group came to be known as the Horn Clan. According to their traditions, the Snake Clan got its name through the experiences of one of their young men who made an expedition down the Colorado River. (Yava and Courlander 1992:55).

Both of these clans were ancestral Paiute who arrived speaking that language. They are now incorporated into the Hopi Way of Life as the Snake Clan and the One Horn Clan.

2.5.2 Hualapai and Paiute Connections

Hualapai-Paiute connections are much less known, reflecting perhaps the tendency to assign them into different culture areas. Intuitively, such classification makes sense: they do not speak mutually intelligible languages (Yuman and Numic); their territories are separated by a major river which, according to Kroeber's territorial model, should serve as a clear and sharp ethnic boundary; and they have not always been at peace with one another. Yet these people are tied together in unique ways.

One way these two ethnic groups are connected is via the trail to the afterlife or Salt Song Trail. This trail is associated with a set of songs called the Salt Songs that are specifically related to places along the trail. The trail to the afterlife passes across both sides of the Colorado River and covers most of Southern Paiute and Hualapai traditional territory (Kelly n.d.; Laird 1976).

The significance of this connection may relate to sociopolitical needs to integrate both groups in the shared knowledge that this is the path to the afterlife.

During a recent ethnographic study we conducted at Hoover Dam in Nevada and Arizona, Hualapai and Southern Paiute elders spoke of their traditional interaction, which included the sharing of Bird, Salt, Deer, and Water songs; dances; ceremonial and social gathering places; paint, salt, and plant collection areas along the Colorado river; and fishing areas. Hunting along the territorial boundaries often took people into each other's territory; large hunting parties often were composed of Paiute and Hualapai hunters. In difficult times children were often taken to the Colorado and adopted into surrogate families across the river to protect them. Additionally, important Southern Paiute ceremonial sites, such as Gypsum Cave and the hot springs in Gold Strike Canyon in Nevada, and

Hualapai sites, including Sugarloaf Mountain and nearby sources of medicine stones and crystals in Arizona, were shared by both ethnic groups (Stoffle et al. 1998:57-81).

There are many accounts of Paiute-Hualapai relationships. One of these comes from the Mormon settler diaries regarding the History of the Las Vegas Mission:

Sunday, Jan. 4, 1857. After meeting, Prest. Samuel Thompson and some others visited some of the Piute wickiups. Shenents, one of the Indians, was quite sick. The brethren took him some bread and administered to him. The natives seemed to subsist on almost nothing. At that season they lived chiefly on a sweet substance they gathered toward the mountains, which they called chump. They begged considerably, but the brethren had little or nothing to spare them. Many of the Indians stayed about the mountains subsisting on chump, and many others went across the Colorado River and lived on the kindness and friendship of the Iats who had plenty of squashes and other things. They went into the Las Vegas camp occasionally, stayed awhile and then returned to their homes. The Indian boys drove an ox from the herd and killed a steer of Elijah K. Fuller's (Jensen 1926:261-262).

It is important to recognize that for the past two years (since the Mormon Fort was established in 1855) the Mormons had steadily usurped more and more Southern Paiute farms in the Las Vegas and Muddy River areas, so the Paiutes were starving while the Iats (their Hualapai neighbors across the Colorado River) had sufficient food to share. During the Hualapai War from 1865 until 1870 at least sixty mounted Southern Paiute warriors fought alongside of Hualapai warriors against the U.S. Cavalry. This was so troubling to the cavalry that they specifically kept track of Paiute activities including where their families were living. Finally, during the 1890 Ghost Dance movement all documented Paiute and Hualapai Ghost Dance ceremonies were jointly sponsored. There is some evidence that these round dance ceremonies were alternatively moved back and forth across the Colorado River to share the experiences with the home communities of each ethnic group (Stoffle et al 2000). Finally, in the late 1800s, the primary religious *Puha'gant* (where power sits or medicine doctor) who practiced medicine at Vulcan's Anvil in the Colorado River at Lava Falls, left his community on the north side of the Grand Canyon and went to live with the Hualapai where he married two women and became a senior religious leader there. This person, and perhaps other Paiutes who also left their northern settlements, went to live with the Hualapai because of extensive Mormon population pressures back home. Culturally, socially, and biologically the Hualapai and the Southern Paiutes have always had friendly relationships thus making artificial taxonomic divisions by archaeologists and ethnographers suspect.

To summarize this argument, scientific sources and traditional American Indian views of the past point to diverse cultural developments among Southern Paiutes that may have resulted in part from ethnic interaction and co-residence with other Numic and Yuman speaking groups. It is possible that contemporary Southern Paiutes have as diverse an ethnic ancestry as contemporary Hopis do, so to ignore the possibility that such variation existed among Numic people in the Great Basin and Colorado Plateau is as misleading as asserting that all "Anasazi" people in the Colorado Plateau were culturally and socially homogeneous.

A line of further research on the origin of Numic people could involve taking their traditional views of ethnic connections as a point of departure for investigating the extent to which these contributed to the generation of cultural and ethnic diversity in the southern Great Basin and western Colorado Plateau areas.

2.6 Using a Numic Perspective to Rethink Gypsum Cave

Here we present an example of how contemporary knowledge about a people's traditional homeland and culture may be incorporated into archaeological interpretation. This unconventional conclusion to an admittedly unconventional argument attempts to bring together a few points made throughout the chapter.

Caves are places of power. They reside in mountains, which have their own power and relate to a cave's power in unknown ways. Also, in caves, there are spirits often referred to in English as "the little people." Associated with caves are underground and surface streams, mineral deposits, hot springs, plants, and animals. Each of these resources influenced how caves were used; and, in turn, their location in relation to a cave dictated the ways in which resources were used. Caves served a vital role in the quest for knowledge by Puha'gants (also known as shamans or medicine men) because they were seen as the embodiment of an individual's spiritual entity as well as the home of lesser spiritual beings. Thus, they were used to seek visions, find spirit guides, and acquire healing power and shamanistic songs (Kelly n.d. 24:7; Laird 1976:38).

Prior to using caves and other sacred places, medicine men would undergo purification rituals, including fasting and prayer, to prepare body and spirit and ensure a safe and successful quest. These rituals often occurred at hot springs, such as those on the Colorado River below Hoover Dam. Before entering caves or other spiritual locations, shamans would deposit food, tobacco, feathers, and other items as offerings to the spirits (Laird 1976:38). One of the most important caves in our study area is Gypsum Cave, known to have been used up to the early twentieth century by Paiute medicine men who sought shamanistic dreams (Kelly 1939:161).

Gypsum Cave is located in the Frenchman Mountains near Lake Mead, Nevada. It contains evidence of human occupation possibly as early as 6,000 B.C. In the early 1930s M. R. Harrington conducted extensive excavations in the cave. Among the materials recovered by Harrington were abundant plant remains—including corn, four cultivated beans, possible squash seeds, a small reddish cactus, mesquite and screwbean pods, pine nuts, and catclaw seeds, eagle, hawk, and vulture feather fragments, groundstone, a sheep-horn spoon, a sheep-hoof rattle, two tortoise-shell bowls, and projectile points (Harrington 1933:89, 150-151). Of all these, Harrington (1933:163) considered only the projectile points, corn, and prepared seeds as possible diagnostics of Southern Paiute occupation of Gypsum Cave. Local informants told Harrington that there was a large "lost chamber" toward the back of the cave. Paiute medicine men were said to have visited this room for the purpose of depositing offerings to small, three-foot high spiritual beings (Harrington 1931:235), which are still regarded by contemporary Paiutes and Hualapais as the little people who inhabit canyons and caves (Stoffle et al. 1998). Unfortunately, he was unable to locate the lost chamber (Harrington 1931, 1933). Harrington concluded that Paiutes visited the cave rarely and only to deposit offerings to the spirits. Yet he interpreted the plant remains as evidence of food preparation and consumption inside the cave, and the presence of points as indicating hunting and related activities.

Harrington's lack of integration of ethnographic data into his interpretation of the findings at Gypsum Cave is puzzling, given that archaeologists of his time routinely used the direct historical approach to reconstruct prehistoric site and artifact uses (O'Brien and Lyman 1999). Yet, his work is indicative of more general patterns in the interpretation of Southern Paiute archaeology that have survived to this day. A cursory look at classic and contemporary ethnography (e.g., Kelly n.d., 1939; Laird 1976; Stoffle et al. 1996, 1998; Zedeño et al. 1999) provides a more complete and parsimonious explanation for the presence of these remains at the cave than Harrington's original interpretation.

First, as Kelly (n.d.) and Laird (1976:38) have pointed out, and contemporary elders have confirmed (Stoffle et al. 1998), many everyday objects, such as points and foodstuffs, were often used ceremonially and deposited in caves, rock ledges, and crevices as offerings (Carroll et al. 2004). The presence of edible plants in the cave may indeed indicate not only food preparation and consumption as Harrington suggests, but also an activity that required depositing ceremonial offerings, particularly if whole food seed cakes—were found. This observation is further strengthened by the recovery of eagle and hawk feathers, which have been exhaustively documented as ceremonial items among Paiutes and Hualapais. Second, artifacts made of animal parts are likewise associated with origin stories and ceremonial healing among Paiutes and Hualapais. Bighorn Sheep figures prominently in Hualapai origin stories; according to a female elder, Sheep was once a handsome man—the horns are now the braids of that man. Sheep horns and other parts have a sexual connotation for women that derives from this origin story. A Paiute male from Pahrump, Nevada, also described to us the religious connotations of bighorn sheep. This animal carries songs and knowledge; when visiting spirit caves, medicine men would become possessed by the spirit of a mountain sheep and would travel to places and receive songs and healing power (Stoffle et al. 1998:82). A petroglyph at the Nevada Test Site shows a medicine man becoming a bighorn sheep and going on a spiritual journey. The sheep horn spoon and hoof rattle are ritual paraphernalia used only by medicine men; the rattle's noise would chase away evil spirits and the spoon figures in healing stories, such as the following related by a Chemehuevi Paiute elder:

How the Crow became Black. Coyote's nephew, Crow, became very ill. Coyote went to the medicine man, Duck, who agreed to heal Crow. Coyote was instructed to paint Crow black and he would be healed. In return for his help, Duck was paid by Coyote with the gift of a sheep horn spoon. After being painted black, Crow was healed and remains black today. (Stoffle et al. 1998:84).

According to contemporary Southern Paiute males, other modified animal remains, such as the tortoise shell bowls recovered in the upper levels of Gypsum Cave, also have ceremonial uses. Two elders independently suggested to us that these artifacts were used for mixing medicinal drinks or potions. The bottom of the tortoise shell was ground into a powder and mixed as a drink, which has healing properties and prevented thirst.

Finally, nine manos were recovered at the cave, none of which resemble Pueblo or Paiute manos from habitation sites in the nearby Moapa Valley. These manos show no evidence of extensive use and may not be associated with food processing. Similar manos have been recorded at the Nevada

Test Site near rock art sites and are believed to be associated with pigment processing. It is possible that those recovered at Gypsum Cave may have served a similar function. Alternatively, manos made of smooth, flat cobbles could have been used as medicine and sweat stones, as indicated by a Shivwits Paiute medicine man (Stoffle et al. 1998:98).

This brief example illustrates how archaeological interpretation can be refined when the knowledge of the people whose ancestors one studies are carefully taken into consideration. In the case of Gypsum Cave, it is evident that contemporary Indian people hold in their historic memory specific information not only about the uses of caves in general or this cave in particular, but of individual artifacts, even though they are not able to use this site or the artifacts any longer. Furthermore, many details about rituals associated with Gypsum Cave are consistent with those provided two generations ago to Isabel Kelly, Carobeth Laird, and even M. R. Harrington. Throughout the years we have recorded numerous instances of consistently held memories of traditional behaviors and historical events.

A logical next step in the reanalysis of Gypsum Cave, therefore, would be to ask of the archaeological record, how old are these artifacts, these occupational deposits, and this site? What other information about ritual behavior can we find in this site that the original excavator did not find or discuss? Broadening these questions may involve a reexamination of what is currently known about nearby caves, such as Pintwater Cave, in Nellis Air Force Base, or Tippihah Cave, in the Nevada Test Site.

Gypsum Cave also informs us about agricultural products that, according to Harrington, may be either Pueblo or Southern Paiute. Given our earlier discussion on aboriginal farming, a reanalysis of the contexts where these remains were found would help test whether they are associated with objects identified as Southern Paiute by Southern Paiutes. If so, dating of these remains would support, albeit indirectly, the antiquity of these people's farming practices.

A less obvious—from what is currently known about the cave's archaeology—but equally important question about the site history is, how many ethnic groups actually used this cave? Hualapai elders say that their ancestors shared this cave with Paiute people. Harrington suggests that it could have been used by the neighboring Pueblos. Perhaps the Western Shoshone bands, whose territory bounded with the Southern Paiutes to the west and who shared camp locales and resource-gathering areas with their neighbors (e.g., Steward 1938:95, 184), also visited the cave. Elder Shoshone men have spoken of shamanistic cave uses in the Yucca Mountain area (Zedeño et al. 1999:110). Finding even partial answers to these and other questions raised by ethnohistorical and ethnographical information may begin to illuminate not only the nature of interethnic relationships along the Great Basin-Colorado Plateau boundary but provide more detailed information about the origin and antiquity of Numu people.

2.5 Discussion

How and why Numic people moved from being relatively complex people (King and Casebier 1976), knowing a lot about their environment and developing irrigated agriculture, to some of the world's simplest people—who have been called the infamous Digger Indians—is beyond the scope of this analysis. Nonetheless, we may suggest that the people's abject poverty at the time the first professional ethnographers reached them, combined with a lack of historical analysis needed to

understand their economic and political deterioration, are two obvious causes for this devolution. Nonetheless, the discounting of Numic culture is something that has influenced generations of Great Basin and western Colorado Plateau researchers. This influence effectively means (to them), that if you find agriculture or evidence of complex ceremonialism, like a solar calendar, it has to be someone else's—it could not have been made by Numic people.

More generally among researchers today, Numic people are getting a second look (e.g., papers in Madsen and Rhode 1994; papers in Clemmer, Myers and Rudden 1999). For example, David H. Thomas' research explicitly tested Steward's views of Western Shoshone organization with archaeological data (Thomas 1973). Thomas further interviewed linguist Sydney Lamb to see what he really meant to say about the Numic spread (Thomas 1994:57). Kim Torgler's work in southeastern Idaho (1995) and David Whitley's (1994, 2000) work on rock art in the Coso Range are also good examples of new approaches to Numic prehistory and history.

Mainstream archaeological, ethnohistorical, and ethnological research tends to operate in isolation from the people whose ancestors are being studied, and yet scholars in these disciplines expect that subject communities will embrace these research findings as factual pieces of their history. Members of tribal societies, on the other hand, have maintained accounts of their own historical facts. We argue that these accounts are critical points of departure for understanding a people's history, while we do fairly concede that some of the oldest pieces of this history may have been lost and portions of other historic accounts may also have been enriched with new memories and increased knowledge of the homeland. Traditional people still residing in their aboriginal lands, however, do not forget or change fundamental aspects of their knowledge about who they are and where they were created. For most Indian people, academic research findings are not privileged historical truths, but are instead simply the product of a different culture—one that we call Western science.

This chapter addresses the stipulated position maintained by contemporary Numic-speaking people (also called Numu) that they have occupied the Great Basin and western Colorado Plateau since time immemorial—this is their ethnogenesis argument. During this time, they have learned about the land and become who they are today. Ethnohistoric and ethnographic data on the Southern Paiute are used to examine the Numic in situ development theory. Some key issues in this argument are: (1) lack of a conquest story in their oral traditions, (2) the presence of optimal irrigated agriculture as recorded at the time of European contact, and (3) complex interethnic connections with neighboring groups. We propose that Numu people's perceptions of their land and ancestors may be taken as points of departure (stipulations) for formulating central hypotheses that address their origins and development.

Don Fowler (2007) concludes his summary of the various and often conflicting linguistic, archaeological, and ethnographic approaches to Zuni Origins with the plea for multivocality. There he agrees with Roger Echo-Hawk (2000) and Joe Watkins (2000) that the more voices there are, the more we will learn about life and times—past and present—in the greater Southwest. Similarly, Ferguson (2007) concludes that the more sources of information we use in studying the past the more we will learn.

Chapter Three: Methodology

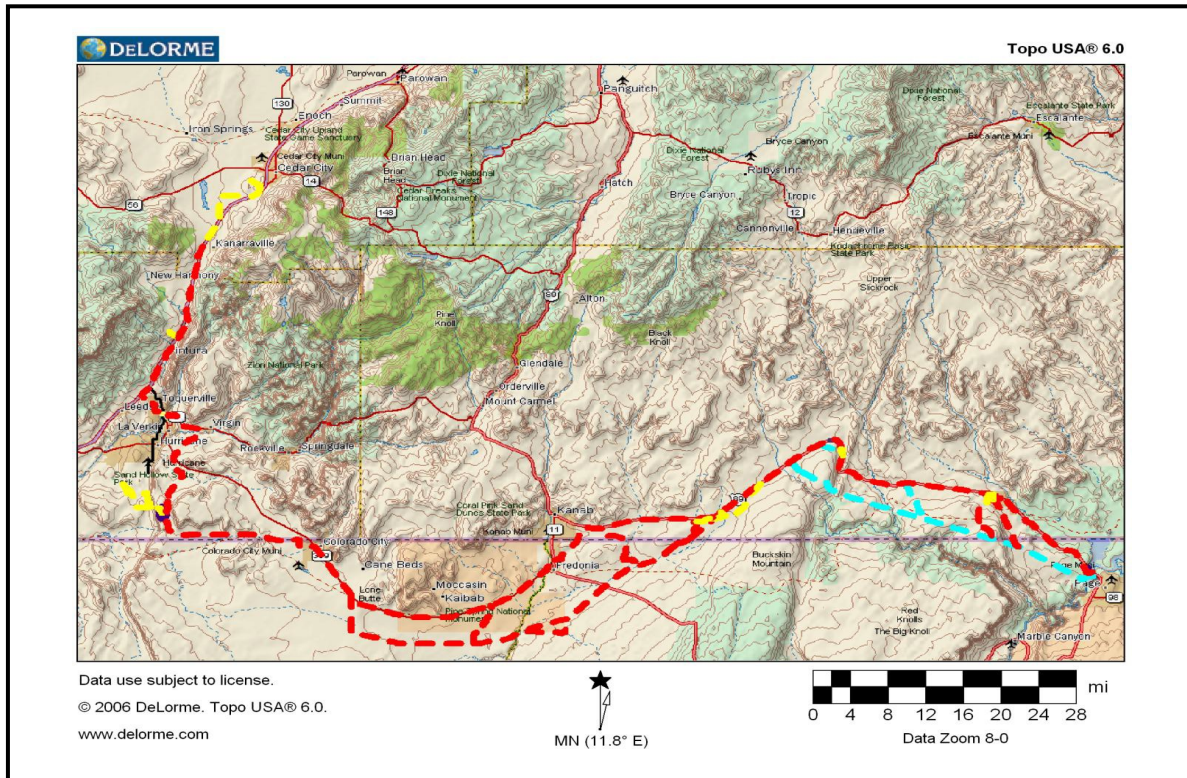
This report summarizes the efforts of the Southern Paiute Advisory Committee (SPAC), who was tasked to document areas of cultural sensitivity located along the proposed route of the Lake Powell Pipeline Project (LPP) (see Map 3.1). Information provided by the SPAC will be used to better inform the actions of the Kaibab Band of Paiute Indians, Paiute Indian Tribe of Utah (which is composed of five former Paiute Tribes), and the San Juan Southern Paiute Tribe. These Southern Paiute tribes have a direct cultural affiliation to lands and resources that will be impacted by the proposed Lake Powell Pipeline. It should be noted that there are eight Southern Paiute tribes culturally affiliated with the study area. The work of the SPAC is intended to assist the culturally affiliated tribes with the evaluation of the Native American cultural resource portions of the LPP Environmental Impact Statement (EIS).



Figure 3.1 Places Visited by the SPAC

The SPAC's report contributes to the ethnographic study of culturally sensitive places, artifacts, and natural resources potentially impacted by the LPP. The findings of this study will contribute to an Environmental Assessment (EA) that will accompany a Historic Properties Management Plan (HPMP) and an EIS, as required by the National Environmental Policy Act (NEPA). Funds for these studies are, by law, provided by the State of Utah, the project proponent. The Federal Energy Regulatory Commission (FERC) will prepare the HPMP and the EIS. Cooperating agencies with jurisdiction along the proposed study area include the Bureau of Land Management (BLM), the National Park Service (NPS), the Bureau of Reclamation (BOR) and the Kaibab Paiute Band of Paiute Indians (Kaibab Tribe).

1 Project website- <http://www.water.utah.gov/lakepowellpipeline/>



Map 3.1 Proposed LPP Routes

3.1 Southern Paiute Advisory Committee

The Kaibab Band of Paiute Indians became a cooperating agency in relationship to the LPP EIS. As such, they are entitled to be fully informed about traditional cultural places, objects, and natural resources that exist in the Areas of Potential Effect (APE) related to the proposed LPP. Therefore, the Kaibab Tribe requested and received funds from the Bureau of Indian Affairs (BIA) to support the fieldwork of the SPAC. The SPAC was constructed so that all three culturally affiliated Southern Paiute tribes would be represented (Table 3.1). Each tribal chair was asked to appoint culturally knowledgeable tribal members to this Committee. BIA also provided funding to support a team of University of Arizona (UofA) ethnographers, headed by Dr. Richard Stoffle, that could accompany the SPAC in the field and facilitate the production of the Committee's reports (SPAC 2011; SPAC 2012; Stoffle et al. 2017) to the tribal governments.



Figure 3.2 SPAC Members

Members of this Committee and the tribes they represent are as follows:

Name	Tribe
Debbie Drye	Kaibab Band of Paiute Indians
Glendora Homer	Kaibab Band of Paiute Indians
Tim Rogers	Kaibab Band of Paiute Indians
Gevene Savala	Kaibab Band of Paiute Indians
Claudina Teller	Kaibab Band of Paiute Indians
Brittanni Wero	Kaibab Band of Paiute Indians
DeAlva Ward	Kaibab Band of Paiute Indians
Clarence John	Paiute Indian Tribe of Utah
Carmen Martineau	Paiute Indian Tribe of Utah
Arthur Richards	Paiute Indian Tribe of Utah
Marlene Billie	San Juan Southern Paiute Tribe
Lee Choe	San Juan Southern Paiute Tribe
Cecil Homer	San Juan Southern Paiute Tribe
Carlene Yellowhair	San Juan Southern Paiute Tribe

Table 3.1 SPAC Members

3.2 Fieldwork and Site Identification

Project fieldwork and meetings occurred in May 2009, October 2009, March 2010, May 2010, September 2010, September-October 2010, October-November 2010, and January 2011. During the May 2009 trip, Committee members visited sites starting near the takeout point, northwest of Page, Arizona, and ended near Hurricane, Utah. During the October trip, the Committee started at the proposed reservoir area south of Cedar City, Utah, and ended in the area just to the west of the Cockscomb. The March 2010 trip focused on visiting places along the pilgrimage route to Kavaicuwac and visit areas that were not targeted in the previous field sessions. During the May 2010 trip, the SPAC spent time reviewing the official LPP archaeology report and then visited newly surveyed sites near the southern boundary of the Kaibab Paiute Indian Reservation. When the Committee returned to the field in September 2010, they revisited culturally sensitive areas and also visited new sites along the proposed southern alternative route, south of Highway 89, and east of Kanab, Utah. At the end of September and early October 2010, the UofA team attended two important LPP tribal meetings—one with the Kaibab Paiutes and one with Zuni Pueblo. At the end of October and early November 2010, the SPAC visited the new endpoint near Cedar City, Utah, and areas along the proposed southern alignment. The last SPAC meeting for the initial ethnographic study was held in January 2011 during which members reviewed and discussed the production of the final report. The following is a brief discussion of the daily activities performed by the SPAC and the UofA ethnographic team during the 2010-2011 field visits.



Figure 3.3 SPAC Members

3.2.1 Trip One: May 2009

The May field session occurred between May 26, 2009 and May 30, 2009. Committee members documented eighteen areas of cultural concern. The following is a day-by-day summary of events.

May 26, 2009

The SPAC and the UofA team met at the Arizona Strip Field Office in St. George, Utah, to discuss the LPP project and the goals and expectations of the SPAC. Following the meeting, the group traveled to Page, Arizona, and along the route, they began to scout and identify potential access roads that could be traveled in the following days.

May 27, 2009

The SPAC and the UofA team left Page, Arizona, in the morning and began to drive the pipeline route from the Lake Powell takeout point near Glen Canyon Dam to Kanab, Utah. Along this segment, seven places were identified as areas of cultural concern.

May 28, 2009

The group focused their efforts examining potentially affected areas on the Kaibab Paiute Indian Reservation. Areas were identified along the proposed highway and southern alignments, which runs just south of the reservation boundary. The group traveled to sites located near Hurricane, Utah. Committee members were able to identify the location of the pipeline drop-off point and the location of one of the reservoirs. In total, eight areas were identified as places of cultural concern.

May 29, 2009

The Committee and the UofA ethnographic team focused their efforts on assessing places near Hurricane, Utah. In total, three areas were identified as places of cultural concern.

May 30, 2009

The SPAC met with the UofA team in the morning to discuss the trip report structure and the Committee's next steps.

3.2.2 Trip Two: October 2009

The October field session occurred between October 10, 2009 and October 14, 2009. SPAC members visited ten sites and documented six new areas of cultural concern. The Advisory Committee, as a result of a post-field session site visit, added two areas. The following is a day-by-day summary of events.

October 10, 2009

The SPAC and the UofA team met at the Arizona Strip Field Office in St. George, Utah. During this meeting, trip objectives were established and intended outcomes of the EIS process were discussed. Following this meeting, the group proceeded to Cedar City, Utah. While en route, the Committee and the UofA team worked to identify the exact locations of the proposed pipeline between Hurricane, Utah, and the proposed reservoir south of Cedar City, Utah.

October 11, 2009

The SPAC and the UofA team left Cedar City, Utah, and drove to the proposed location of the Cedar Valley Reservoir in Quitchapah Lake. The SPAC identified the lake and a nearby creek as areas of cultural concern. From there, the group followed the proposed route as it parallels the Harmony Mountains. Along this route, the SPAC evaluated a canyon within the Virgin River watershed and then traveled towards Toquerville, Utah. In total, the SPAC identified three areas as places of cultural concern.

October 12, 2009

The SPAC and UofA ethnographers visited areas east of the Hurricane Cliffs. The group examined the area where the pipeline is proposed to cross the Virgin River. Then, the SPAC and the UofA team headed southward towards Gould's Pond. During this visit to Gould's Pond, the SPAC noted that new test pits had been drilled and land had been cleared since the site had been last visited in May 2009. From Gould's Pond, the group traveled towards Colorado City, Utah. Committee members identified three new places as areas of cultural concern.

October 13, 2009

This day was spent evaluating locations along the *Kavaicuwac Puha Po* (pilgrim trail). A large archaeological site was discovered northwest of the Cockscomb. The Committee believed that this area was part of the larger Puha Po and it was identified as an area of cultural concern.



Figure 3.4 The Virgin River

October 14, 2009

The SPAC met with the UofA team in the morning to discuss the trip report structure and the next steps for the Committee.

3.2.3 Trip Three: March 2010

The March field session occurred between March 17, 2010 and May 21, 2010. Committee members visited eleven areas of cultural concern. Sites were revisited to orient new Committee members and to give sites a full assessment. The following is a day-by-day summary of events.

March 17, 2010

The UofA team and members of the SPAC met in St. George, Utah, at the Arizona Strip Field Office for an orientation meeting. The meeting was used to inform new Committee members of previous work conducted by the SPAC and to discuss the intended goals and outcomes of the trip. After the meeting, the group drove to Kanab, Utah.

March 18, 2010

The UofA team and the SPAC visited places along the Puha Po to Kavaicuwac. Time was spent visiting the *tumpitunwixnap* (story rock) panels in Catstair Canyon. Afterwards, the group traveled to a site located in the Sand Gulch watershed where they found offerings and clear views of Kavaicuwac. From this area, the group drove towards Kavaicuwac. Along this route, the Committee discovered a pecking panel that was associated with the Puha Po. Committee members named the site Trail Map Rock. Although the site itself will not be directly impacted by pipeline construction, the Puha Po will be. The SPAC believed it was important to document places along the trail to show how places are connected. They wanted to use this opportunity to call attention to the fact that construction will hinder this ceremonial area. In total, SPAC identified two new areas of cultural concern.

March 19, 2010

The SPAC and the UofA team devoted most of the day to visit three places that are part of the Ipa Cultural Landscape. The first site visited was a traditional Southern Paiute community at a place identified as Ipa. Then the SPAC visited the other two sites, which are located along the proposed South Alignment Alternative for the LPP. After assessing the site complex in the Ipa Cultural Landscape area, the group drove where the LPP Highway Alignment leaves Highway 89 and bypasses the communities of Kanab, Utah, and Fredonia, Arizona. The pipeline is proposed to traverse a wash in this area and while driving around it, SPAC identified a traditional Southern Paiute gathering camp. The SPAC assessed four areas of cultural concern on this day.

March 20, 2010

This day was devoted to visiting places along the proposed Cedar Valley pipeline routes. Time was spent early in the day revisiting the location where the pipeline crosses the Virgin River in order to give new Committee members an opportunity to orient themselves and make comments. In addition, this allowed returning Committee members a chance to add to their previous thoughts. From the river crossing, the group traveled to Nephis Twist, however due to poor road conditions, the Committee was unable to assess the whole canyon and they raised concerns about this area being developed as part of the proposed pipeline. From there, the Committee visited the location of the traditional Paiute farms at the mouth of canyon creek within the Virgin River watershed and returned to the bottom of Hurricane Cliffs drop-off point. Assessments were made for four places on this day.

March 21, 2010

The SPAC met with the UofA team in the morning to discuss the trip report structure and the next steps for the Committee and the future of the LPP EIS process.

3.2.4 Trip Four: May 2010

This trip occurred from May 24 to May 28, 2010. During this trip, the SPAC was tasked with reviewing and commenting on the LPP archaeology report entitled Lake Powell Pipeline Class III Report prepared by Sagebrush Consultants. The Committee devoted two days reviewing and drafting an official response to this 5,000 plus page document. The third day was spent visiting newly surveyed sites along the proposed southern alignment route.

3.2.5 Trip Five: September 2010

The fifth field session occurred September 8 to September 12, 2010. During this field session the SPAC visited three new sites and revisited two sites that were identified as areas of cultural concern. The SPAC requested that time be spent revisiting these two sites because pipeline construction activities will cause massive damage to these areas of critical cultural concern. The new sites were selected based on archaeological survey of the areas. The following is a day-to-day summary of activity.

September 8, 2010

The UofA team and the SPAC traveled to Kanab, Utah. A brief orientation was held that evening to discuss the field activity plan for the next three days.

September 9, 2010

The UofA team and SPAC held a detailed project meeting in the morning of September 9, 2010. During this meeting, the group discussed overall project updates, the new site visit methodology, places to visit, and the structure of the SPAC report for the tribes and for the state of Utah. In the afternoon, the group traveled to an area south of the Kaibab Paiute Indian Reservation to sites located along the proposed southern alternative alignment. This area was identified as *Wutivungkunt* Camp. The SPAC requested that this site be revisited during a later field session because they believed the boundaries of the site are larger than identified by archaeological survey.

September 10, 2010

On this date, the SPAC and the UofA team traveled to places east of Kanab, Utah. The first area visited was along Eight Mile Gap. This area has been selected as a major access road upgrade and there was a concern for cultural resources in the area. In the afternoon, the group visited an area in the Ipa landscape called *Pubagant Kanihype*. The SPAC believed this site was used as an important

Southern Paiute medicine area and another visit was needed to fully document its cultural significance.

September 11, 2010

The last day of site visits was devoted to visiting places along the *Kavaicuwac* Puha Po. This field session included a return to Trail Map Rock and a first time visit to *Pankanivits*, a spring north of Kavaicuwac. The Committee wanted to see and assess these areas because the Puha Po is one large cultural resource that encompasses many sites.



Figure 3.5 SPAC Member Looking Towards Kavaicuwac

September 12, 2010

Before returning home on September 12, the SPAC met with the UofA team in the morning to further discuss the report structure and the next field session for the Southern Paiute ethnographic study.

3.2.6 Trip Six: September-October 2010

The sixth field session occurred from September 29, 2010 to October 1, 2010. During this trip, UofA team members attended two important project meetings and conducted scoping for future site visits. The first meeting was held at the community center on the Kaibab Paiute Indian Reservation. For the second meeting, the UofA team met with members of Zuni Tribe's cultural

resources division at the Pueblo of Zuni, New Mexico. The following is a summary of these activities.

September 29, 2010

The Kaibab Paiute Tribe invited Dr. Stoffle and other UofA team members to attend a meeting for the general tribal membership on the Lake Powell Pipeline EIS. Representatives from the involved state and federal agencies were also present. Dr. Stoffle gave two presentations on the work being conducted by the SPAC. The first presentation contained information that was appropriate for a public audience. The second presentation contained sensitive cultural information for only tribal members.

September 30, 2010

The next day, the UofA team left Kanab, Utah, and traveled towards Gallup, New Mexico. During the drive, they visited areas along the proposed LPP route. They arrived in Gallup in the evening and prepared for a meeting with the Zuni Tribe's cultural resources division.

October 1, 2010

On this date, the UofA team met with members of Zuni's cultural resources division at the request of the Kaibab Paiute Tribal Council and chairman. The purpose of this meeting was to discuss the LPP ethnographic studies and possible tribal collaboration at a later point in the project.

3.2.7 Trip Seven: October-November 2010

The seventh field session occurred from October 29, 2010 to November 2, 2010. During this trip, the SPAC and the UofA team visited four new areas of cultural concern including the new project endpoint located south of Cedar City, Utah. The other three areas visited were located along the southern pipeline alignment near the Kaibab Paiute Indian Reservation.

October 29, 2010

The UofA team and members of the SPAC met in St. George, Utah, at the Arizona Strip BLM office for an orientation meeting. The group discussed and agreed to a field plan and expectations for the next three days, which included focusing on areas in and around the Kaibab Paiute Indian Reservation.

October 30, 2010

On this day, the group traveled from St. George, Utah, to Cedar City, Utah, in order to visit the new project endpoint at Cross Hollow Hills. Since the last visit to the Cedar City area, the State of Utah

redesigned the end of the pipeline, thus Quitchpah Creek was no longer being considered. Because of this, a return visit to Cedar City, Utah, was essential. The Committee spent the entire day examining the Cross Hollow Hills area and then returned to St. George, Utah, that evening.

October 31, 2010

The group left St. George in the morning and drove to the Kaibab Paiute Indian Reservation to visit locations along the southern alignment particularly places in and around the *Wutiviungkunt* Cultural Landscape. During the September 2010 fieldwork, the Committee requested that they return to Wutiviungkunt Camp to visit one of the springs, Pankanivits, which is nearby Wutiviungkunt and northeast of the ridge, Indian Knoll. They believed all of these places are connected and make up a localized cultural landscape. After a day spent at Pankanivits and Wutiviungkunt, the group traveled to Kanab, Utah.

November 1, 2010

The SPAC and the UofA team spent this day visiting Indian Knoll. By examining this place, the Committee reaffirmed their belief that Pankanivits, Indian Knoll, Wutiviungkunt, and Wutiviungkunt Camp are part of a localized cultural landscape. After the field visit, the group again returned to Kanab, Utah.

November 2, 2010

Before returning home on November 2, 2010, the SPAC met with the UofA team in the morning to discuss completing the report write-up and a follow up meeting to address issues of cultural sensitivity in the public version of the “Indian Eyes Only” report.



Figure 3.6 The SPAC

3.2.8 Trip Eight: January 2011

The eighth field session occurred from January 14, 2011 to January 17, 2011. This trip had two important functions. The SPAC's first task was to meet with members of the Kaibab Band of Paiute Indians to discuss the Lake Powell Pipeline project and report findings. This meeting occurred on January 14, 2011. The Committee received supportive feedback on the report findings from community members. Following the meeting, the SPAC and UofA ethnographic team traveled to Kanab, Utah, for the remainder of their trip. During the next two and half days, the Committee and the UofA team met at the Kanab Public Library to discuss and edit the final report. The report was agreed upon by SPAC and the three involved tribes approved the final draft.

3.2.9 Post 2011 Fieldwork

The SPAC and the UofA returned to the field in 2012 and 2017. After reviewing drafts of the Class III archaeology survey, the SPAC decided to visit places along Highway 389 and south of the reservation. In 2012, SPAC members surveyed and assessed the entire route as it passes along the highway across the Kaibab Paiute Reservation. During the 2012 field visits, the SPAC also revisited places along the southern alignment, which include places found within the Wutiviungkunt Cultural Landscape and places in Kanab Creek. In 2017, the SPAC visited three places located along the southern alignment near the Kaibab Paiute Reservation that were surveyed during both the LPP Class III Archaeology Survey (Commonwealth Heritage Group 2017) and the Class III cultural resource inventory of the Western Transmission System (Navajo-McCullough Transmission Line) (Logan 2016).

3.3 Site Visit Methodology

During each field session, the SPAC was guided by Southern Paiute cultural principles for visiting places within their traditional territory. At the start of each day, the Committee would gather to say prayers and smudged themselves with sage before exploring sites along the proposed routes. These actions were done to spiritually prepare themselves for the field visits by making sure they were not taking any imbalances and impurities with them that could cause the group harm during the day. While at each site, Committee members said individual prayers and left offerings. When looking at artifacts that were left by the *Enughwuhipe* (ancient ones), some materials were picked up to be photographed and examined more closely. These items were returned to the spots where they were found and no artifacts were collected. At the end of each field day, the Committee gathered for exit prayers and smudging in order to prevent bringing spirits into the community. These spirits might cause people harm and sickness. SPAC members stressed that these actions were necessary because visitors need to show the land, the plants, the animals, the ancestors, and other elements respect.



Figure 3.7 SPAC Members Visiting Places along the Proposed LPP Routes

The SPAC identified a total of 52 individual sites during the course of three separate studies. During the field sessions, Committee members selected places along the proposed pipeline routes that were within the project's ethnographic APE. These sites contain a variety of Native American cultural resources such as, archaeological materials (lithics and pottery), rock art, human remains, and ethnobotanical materials. The Committee visited places that have been traditionally used by Southern Paiute people for a variety of activities. Some sites were places where people lived, such as the Kwanatsikani and Calf Pasture Village. Other places were used for ceremonial activities including regional and world balancing ceremonies like the Ghost Dance Site at Kanav'uipi. Some places have historical significance, like the Massacre Site, and some were places along traditional trail systems, like the canyon visited in the Virgin River watershed.

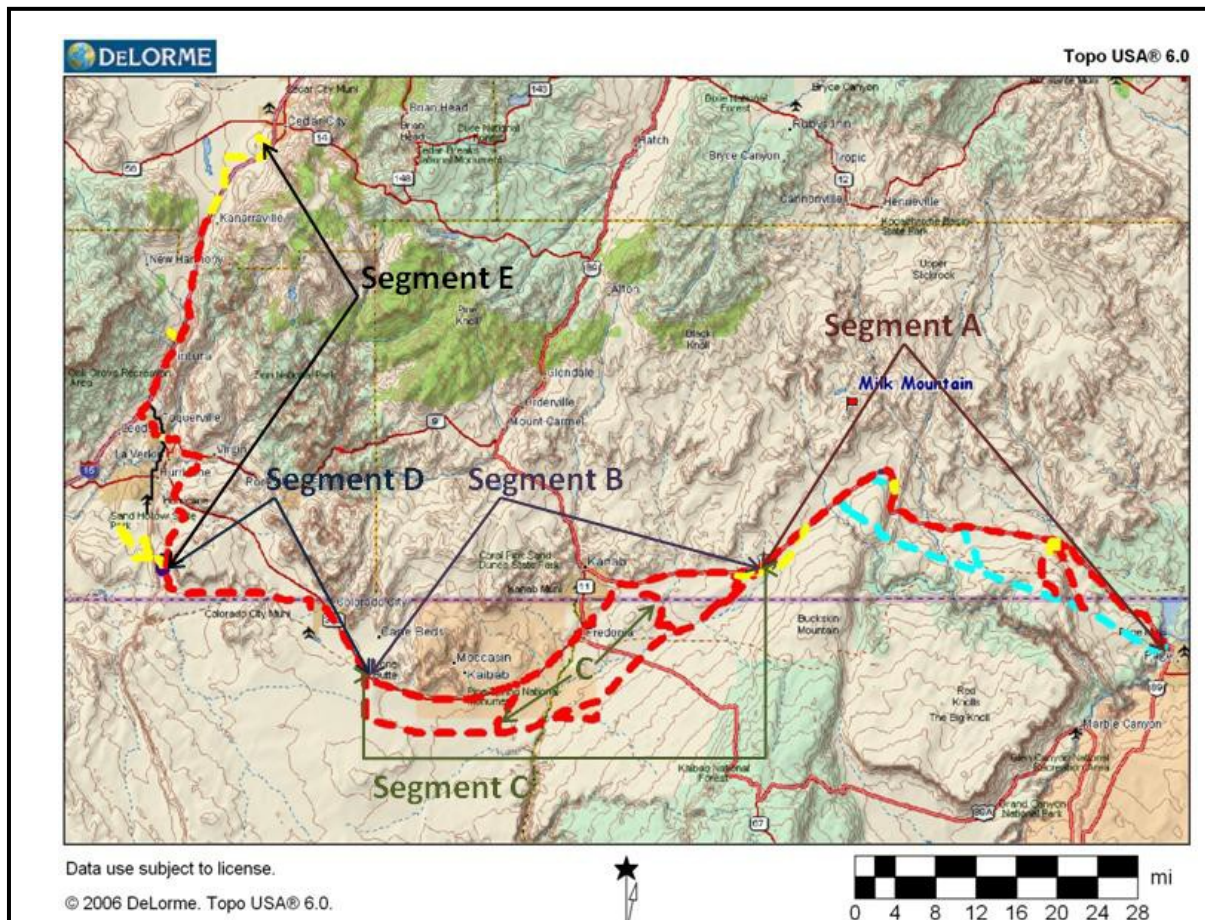
While visiting the sites, SPAC members were asked to write a brief statement describing what was found and whether or not it should be considered for a site visit during the larger ethnographic study. The SPAC was tasked with providing each location with a name that they felt best reflected the site and its meaning. These assessments serve as the core of the report with the UofA ethnographic team only providing technical assistance in report production. Table 3.2 breaks down the site visits by trip and includes the number of SPAC site assessments. It is important to note that a number of places visited during the 2011 and 2012 study were visited multiple times by SPAC members and each return visit increased the confidence in the study findings.

Segment	Site Name	2011	2012	2017
A	Glen Canyon Water Takeout Point	5		
	White Rocks-Sand Mesa	5		
	White Sandstone Rock	5		
	Paria River Crossing	5		
	Catstair Canyon Petroglyphs Panel	15		
	Upper Catstair Canyon	5		
	Five Mile Spring			
	Grandmother Tree	8		
	Trail Map Rock	18		
	Kavaicuwac Paayuxwitse	7		
	Kavaicuwac Cultural Landscape	7		
B	Sego Lily Camp	9		
	Johnson Wash			3
	Kwanatsikani	5		
	Kanab Creek Agricultural Community		6	
	Cottonwood Creek Agricultural Community		6	
	Sandy Canyon Agricultural Community		6	
	Sand Wash Agricultural Community		6	
	Moccasin-Twomile Agricultural Community		6	
	Pipe Spring Agricultural Community		6	
	Pipe Valley Agricultural Community		6	3
Segment	Site Name	2011	2012	2017
B	Calf Pasture Village	5		
C	Ipa	9		
	Puhagant Kanihype	20		
	Cliff Rim Panels	11		
	Ipa Cultural Landscape	1		
	Eight Mile Gap	9		
	Two Story Community Site	5	6	
	Massacre Site	5	6	
	Cut Rock Calendar Site	5	6	
	The Ghost Dance Site	5	6	
	Power Line Crossing	5		
	Enugwuhype Site	18		
	Tuweep Po	27		
	Pahkanivits	8	6	
	Wutiviungkunt Camp	10	6	3

	Wutiviungkunt	8	6	
	Indian Knoll	8	6	
	Lower Pipe Valley Agricultural Community			3
	Wutiviungkunt Cultural Landscape	5		
D	Corncob Rock Shelter	8		
	Gould's Pond Basin	5		
	Hurricane Cliffs Drop-Off Point	8		
E	Area of Critical Plant Habitat	5		
	Gould Creek Volcanic Wash Crossing	5		
	Knoll Hill	8		
	Virgin River Crossing	12		
	Nephis Twist	9		
	Ash Creek Canyon	13		
	Harmony Mountains' Foothills	8		
	Quitchapah Creek and Lake	8		
	Cross Hollow Hills	8		
Total		355	90	12
Grand Total		457		

Table 3.2 Number of Site Assessments by Study

The SPAC also was provided with two survey instruments to focus their thinking and comments about places visited. These survey forms were developed by UofA researchers in conjunction with Southern Paiute people.



Map 3.2 LPP Segments Studied

The Site Interview Form is place-specific and is used to record site use, history, and types of ethnographic resources associated with site use including water, plants, animals, minerals, landforms, and archaeological remains. With this form, the ethnographer can elicit detailed information on material, behavioral, and spiritual connections among resource types and between each resource and a place. The site interview forms were used initially in Zion National Park and in the Pipe Spring National Monument Study (Stoffle et al. 1999). The “Zion Form” has since been successfully applied in numerous federally funded projects that involved tribes in the West and Midwest regions of the United States.

The Cultural Landscape Form was designed, with input from agencies, to manage large American Indian areas as an integrated cultural phenomenon. At a federal policy level, such efforts correspond with the concept of Ecosystem Management (Yaffee et al. 1996). The landscape form frames place and resource-specific information in a broader regional and more abstract cultural context. With this form, we investigate origin and migration traditions, ethnic group settlement, land use history, and specific use patterns of the natural topography. Data on trail systems, including travel across land and through water, and ceremonial trails, associated with songs, drum circles, dreaming, pilgrimages, and individual quests, also are crucial to unraveling complex cultural connections between places and resources.



Figure 3.8 Canyon Creek in Virgin River Watershed

During the initial ethnographic study (SPAC 2011), 364 site assessments were completed. Map 3.2 shows the segments of the proposed pipeline routes and associated power line upgrades. The SPAC believes these places of cultural concern need further ethnographic analysis because pipeline construction has the potential to affect the sites' cultural integrity.

Since then, the SPAC and the University of Arizona have participated in additional field visits at the request of the Kaibab Band of Paiute Indians (SPAC 2012, Stoffle et al. 2017). Findings from these field sessions have been incorporated into this analysis.

Ethnographic studies reveal linkages between places through the identification of cultural landscapes and trail systems (Stoffle and Arnold 2003, Stoffle et al. 2006, Stoffle et al. 2008a, Stoffle et al. 2008b, Stoffle et al. 2009). The SPAC documented that the proposed pipeline routes intersect three distinct trail networks. The first trail was a major travel and trade route that traversed through a canyon creek within the Virgin River watershed. Southern Paiute people, well into the contemporary period, used this route. It was a major trail that connected the Southern Paiute communities along the Virgin River in the south to those in the north. This trail also has historical significance. Fathers Dominguez and Escalante took this route during their 1776 expedition. In their travel diary they provided the earliest accounts of Southern Paiute agriculture at the mouth of the canyon near the present-day community of Toquerville. The other two trails that would be potentially affected by pipeline construction are associated with ceremonial activity. These two unique pilgrimage trails, or Puha Pos, tie together places like the Hurricane Hot Springs to Zion National Park and the Paria River to Kavaicuwac.



3.9 Location of Traditional Southern Paiute Farms

The SPAC began to link together the Puha Pos from Paria River area to Kavaicuwac. Kavaicuwac is a place that has long been associated with Southern Paiute people. Anthropologist Isabel Kelly first documented it in the 1930s. Kelly noted it was a place of cultural importance, but she did not provide details of its use or meaning. In later ethnographic studies, traditional uses of Kavaicuwac were discussed. In the Grand Staircase-Escalante ethnographic study, elders identified Kavaicuwac as a culturally important landmark located on traditional Paiute trails (Stoffle et al. 2004). Based on those earlier discussions, the SPAC began the process of identifying locations along this route as part of a possible pilgrimage. The proposed pipeline route would cut directly through the pilgrimage route. The SPAC wanted to ensure that the trail and associated sites were documented and thoroughly studied in order to protect them from damage.



Figure 3.10 Kavaicuwac

The next chapter will provide readers a summary of findings by the Southern Paiute Advisory Committee (SPAC) developed in response to LPP proposal. The demonstrate that Southern Paiute landscapes, places, and resources are found along the entire LPP corridor and Southern Paiute concerns must be at the forefront during the decision-making process.

Chapter Four: Study Findings

This chapter presents a summary of findings by the Southern Paiute Advisory Committee (SPAC) developed in response to the Lake Powell Pipeline (LPP) proposal to remove Colorado River water from Lake Powell and pipe it to various southern Utah communities. In addition to the impacts that would derive from the construction of a large underground 68 inch tall pipeline, the LPP proposal includes ground disturbing activities such as those associated with electrical transmission lines, construction lay down areas, water pumping stations, water storage reservoirs, and access road upgrades designed to facilitate construction, maintenance, and operational activities.

The SPAC was appointed by their tribal governments to travel portions of the LPP Areas of Potential Effect (APE) and to identify places, natural resources, and ancestral ceremonial and domestic use locations that the SPAC deems to be culturally sensitive to Southern Paiute people today. The Committee then was asked to recommend actions to the tribal governments. With such a charge, the SPAC focused on places recognized as culturally important. The term ‘culturally sensitive’ was chosen to talk about places, natural resources, and ancestral ceremonial and domestic use locations; however, each of these locations can be potentially discussed in terms of nationally recognized criteria.

Culturally sensitive is a term that best fits the guidance provided to the SPAC members by their tribal councils, who told them to look for traditional places and resources that the council should know about. Still, there are many discussions of such sites that have both agency and national agreements. The following Venn diagram (Figure 4.1) presents the complexity of working in the environment of American Indian cultural resource identification, management, use, and protection in the United States. As noted in Chapter One, Southern Paiute culturally sensitive places include sensitive areas, sacred sites, traditional cultural properties, and traditional cultural districts. A discussion is needed on how to define the types of Native American Places found within the LPP APE. They are as follows:

- A. **Site:** The archaeology concept of site is very specific and once identified is usually referenced with a formal site designation number and recorded in a State database. In the case of the LPP the original archaeology site survey (Commonwealth Heritage Group 2017) was considered incomplete by reviewers including the SPAC. To illustrate this issue, three locations where the LPP and Navajo-McCullough Western Transmission Line correspond were studied. Representatives of the SPAC compared the archaeology site location, site size, and site interpretations. It was found that LPP sites were incompletely recorded, small in size, and different from other interpretations. The SPAC found even the Navajo-McCullough surveys (Logan 2016) were incomplete.
- B. **Sacred Sites (Places):** The concept of Sacred Sites occurs officially in the Executive Order 13007 Indian Sacred Sites (<http://www.archives.gov/federal-register/executive-orders/1996.html#13007>). Tribal access to these sites is protected by the Federal Government. The location, purpose, and size of the sacred sites are identified by culturally associated American Indian Federally Recognized Tribes. Sacred Places is a commonly used term to reference theses Sacred Sites because it removes the location and authority related to such places from the archaeology definition of site.

- C. **Traditional Cultural Property:** The concept of a Traditional Cultural Property is well understood but is very much overused given that there are other kinds of properties which both qualify for inclusion in the National Register of Historic Places and are understood under other federal laws and regulations. See NPS Bulletin #38 for a fuller discussion.

One kind of cultural significance a property may possess, and that may make it eligible for inclusion in the Register, is traditional cultural significance. "Traditional" in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a community's historically rooted beliefs, customs, and practices. Examples of properties possessing such significance include:

- a. A location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world;
- b. A rural community whose organization, buildings and structures, or patterns of land use reflect the cultural traditions valued by its long term residents;
- c. An urban neighborhood that is the traditional home of a particular cultural group, and that reflects its beliefs and practices;
- d. A location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice; and
- e. A location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historic identity.

A traditional cultural property, then, can be defined generally as one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community.

- D. **Traditional Cultural District (Cultural Landscape):** The concept of a Traditional Cultural District is similar to a Cultural Landscape; the latter however is somewhat better understood. Nonetheless, both occur in the LPP APE.

The following is a quote from 'Cultural Landscapes and Traditional Cultural Properties: A Southern Paiute View of the Grand Canyon and Colorado River' By Richard W. Stoffle, David B. Halmo, and Diane E. Austin (1997: 233) and that piece should be consulted for a fuller discussion of this issue.

The term cultural landscape is meaningful because it is widely understood without further explanation and has official standing in a number of U.S. federal laws, regulations, and guidelines. Perhaps the most detailed federal policy statement on cultural landscapes appears in the National Park Service Cultural Resource Management Guidelines (NPS 1994). There, the agency defines cultural landscapes as complex resources that range from rural tracts to formal gardens (NPS 1994:93). The natural features such as landforms, soils, and vegetation provide

the framework within which the cultural landscape evolves. In its broadest sense, a cultural landscape is a reflection of human adaptation to and use of natural resources. A cultural landscape is defined by the way the land is organized and divided, settled, and used, and the types of structures that are built on it. The NPS stipulates that a cultural landscape is a geographic area, including both natural and cultural resources, associated with an historic event, activity, or person (NPS 1994:94). Using these criteria, the NPS recognizes four cultural landscape categories: (1) historic designed landscapes which are deliberate artistic creations reflecting recognized styles; (2) historic vernacular landscapes which illustrate peoples' values and attitudes toward the land and reflect patterns of settlement, use, and development over time; (3) historic sites which are important for their associations with important events, activities, and persons; and (4) ethnographic landscapes which are associated with contemporary groups and typically are used or valued in traditional ways.

There are based on our research five major types of cultural landscapes we have found to be perceived by many American Indian peoples. In terms of both size and function, these are (1) holy landscapes, (2) storyscapes, (3) regional landscapes, (4) ecoscapes, and (5) landmarks.

The key point to this discussion is that American Indian people have lived since the beginning of time and have co-evolved with their physically and socially constructed environment. This complex inter-relationship generally is discussed as Sacred Ecology (Berkes 1999). Deriving from sacred ecological relationships is a view of traditional resources that traditional people organize with terms that tend not to match those used by national cultural resource management agencies. This does not imply that there is no way to find commonly agreed upon definitions for cultural resources, but instead it implies that careful discussion must be conducted in specific situations in order to be certain that accurate communication is occurring. This applies to the identification, management, use, and protection of these cultural resources.

The Southern Paiute tribes, numerous Western Shoshone tribes, and the Owens Valley Paiute tribe officially identified a minimal list of cultural studies needed to represent the full range of cultural resources and potential impacts that can occur from proposed agency land use actions (American Indian Writers Subgroup 1996). These resource studies are as follows:

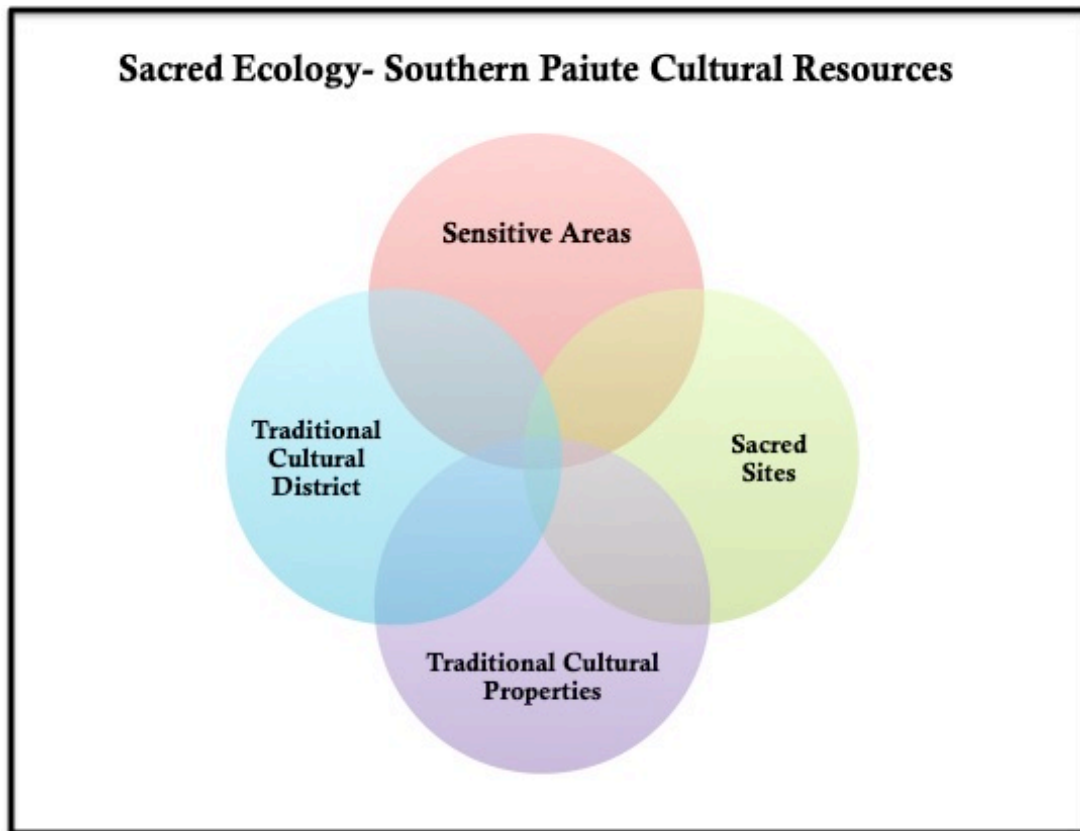


Figure 4.1 Sacred Ecology

- Ethnoarchaeology—the interpretation of the physical artifacts produced by our Indian ancestors.
- Ethnobotany—the identification and interpretation of the plants used by Indian people.
- Ethnozoology—the identification and interpretation of the animals used by Indian people.
- Rock art—the identification and interpretation of traditional Indian paintings and rock peckings.
- Traditional Cultural Properties—the identification and interpretation of places of central cultural importance to a people. Indian people often refer to these as "power places."

When viewed from an official tribal position, the current LPP ethnographic study should only be viewed as an initial step in the process of conducting a complete American Indian cultural impact assessment.

Some places along the LPP routes visited were not studied due to the time required to conduct a site analysis. Many other portions of the LPP APE were not visited at all by the SPAC due to access issues and time needed to conduct a full assessment. Some resources were understudied due to the seasons in which site visits occurred, thus natural resources like plants and animals were either

missing or difficult to identify. While the findings in this report represent a selective sample of Southern Paiute places, natural resources, and ancestral locations along the proposed LPP routes, the SPAC stipulates that Southern Paiute cultural resources, places, and landscapes are found along the entire LPP corridor.

4.1 Place Evaluation Criteria

Cultural resources can be calculated using traditional values, the logic of evaluation, and cultural views of resources as mutually interdependent and living components of the universe. Efforts to develop appropriate methodologies for calculating the cultural significance of resources have utilized an iterative approach involving field interviews, advisory committees, and collective discussions and confirmation with official tribal representatives. One example of this process occurred with the 17 American Indian tribes culturally affiliated with lands currently managed by the Department of Energy on the Nevada Test Site (NTS) (Stoffle, Zedeño, and Halmo 2001). These efforts with Numic-speaking tribes, largely occurring in the late 1980s and early 1990s, resulted in an approved calculus for evaluating individual plants and the places where they grow (Stoffle et al. 1990). This methodology was subsequently tested in a Department of Defense Air Force Environmental Impact Assessment (EIA) in Utah that involved some of the same NTS cultural affiliated tribes as well as two new tribes (the Goshutes and Utes) connected to areas in Utah (Halmo, Stoffle, and Evans 1993). The Utah-based restudy of the methodology confirmed the accuracy of both using the calculated values of individual plants and the notion that each plant present in a location contributes to its total cultural value, what we have come to call the one plant one vote calculation. Further analysis of field interviews conducted over the years with American Indian people documented that up to 16 interviews are needed over different seasons with persons of various age and gender backgrounds in order to fully understand the cultural significance of traditional plants (Stoffle, Halmo, and Evans 1999).

These were efforts to develop the criteria for the systematic evaluation of the cultural importance of places during the NTS studies, with the participation of the 17 culturally affiliated tribes. These efforts resulted in a number of criteria being suggested that were very similar to those associated with plants. In fact, plants are one of the natural resources that contribute to the cultural importance of places. While no formal agreement was reached regarding how to establish the cultural importance of places, some of the criteria discussed during the NTS studies have been used in this study to shed light on the reasoning behind the cultural assessment present in this report. The following Place Evaluation Criteria was used to supplement other rationales used by the Advisory Committee during their studies of various sites along the LPP APE (see Figure 4.2).

The remainder of this chapter provides a summary of places and cultural landscapes and the reasons they were incorporated into this environmental assessment. The places and landscapes are discussed as they appear along segments of the LPP proposal and sequentially as the water would flow along the pipeline from Lake Powell to Cedar City, Utah. Only the cultural significance of a cultural landscape is discussed when the places within it are seen as related and deriving their significance from being part of a larger cultural area.

The five segments are identified based on each being a continuous portion of the LPP proposal. New segments occur where there are breaks, multiple alternatives, or new pipelines in the LPP

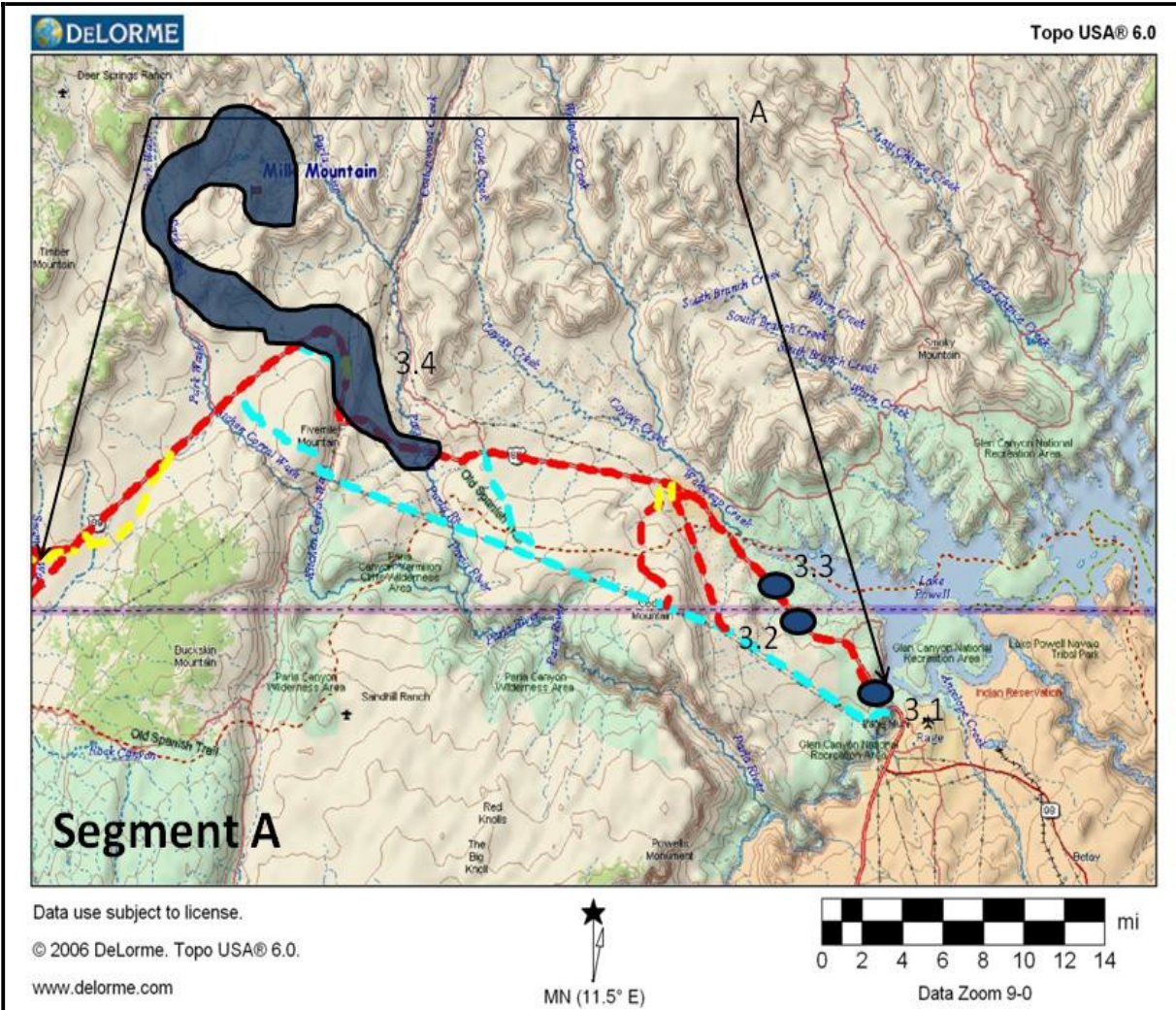
proposal. Segment A begins at the proposed LPP takeout point at the edge of Lake Powell and travels to the west until Puha'gant Kanihype. Segment B begins at Puha'gant Kanihype and continues west, generally along Highway 89 where it crosses the Kaibab Indian Reservation, on what is now Highway 389. It continues to where it is joined by the southern alternative near Cane Beds. Segment C is the southern alternative which begins at Puha'gant Kanihype but turns south of Highway 89. It then passes to the west, below the Kaibab Paiute Indian Reservation, and subsequently rejoins Segment B near Cane Beds, located just east of Colorado City, Arizona. Segment D begins at Cane Beds (the juncture of Segments B and C) and proceeds west to Gould's Pond. Segment D contains both of the new ponds proposed to be located above and below the Hurricane Cliffs. The pipelines from the lower ponds to Sand Hollow Reservoir were not studied. Segment E is the new pipeline and begins at Gould's Pond. The pipeline then extends generally to the north arriving at Cedar City, Utah. Two possible arrival points were discussed during this study and both are incorporated into this report.

4.2 Segment A

Segment A begins at the proposed LPP takeout point at the edge of Lake Powell and travels to the west generally along Highway 89 until it reaches Puha'gant Kanihype. The route is largely flat until it reaches the Paria River after which it follows the Five Mile hydrological drainage system upstream, during which it cuts dramatically through the Cockscomb at Catstair Canyon and ends near Five Mile Spring. From the sharp curve in the highway, all the way to Puha'gant Kanihype, the route is downhill and travels along largely smooth terrain. At Puha'gant Kanihype, the LPP has two alternative pipeline proposals for the pipeline called here Segment B and Segment C (see Map 4.1).

Along Segment A, the SPAC focused on a series of sites occurring on the proposed LPP pipeline route, but there was neither time nor funds to study the extensive proposed new power line areas to the south of the pipeline or the proposed access road upgrades.

Along the LPP pipeline proposal there are a series of places that are part of an extensive cultural landscape that begins at least at the Paria River and extends to a large volcanic ceremonial destination called Kavaicuwac. There are Southern Paiute arguments that this cultural landscape has other components, which would connect the known Kavaicuwac portion to distant Indian communities such as Hopi and Zuni. One argument is that a connecting trail passes downstream to a point where the Paria River reaches the Colorado River. At this point there is an easy and traditional river crossing (now called Lee's Ferry) which connects with a distinctive trail to Hopi and subsequently to Zuni. Another argument is the presence of a trail to the Colorado River just above Glen Canyon is the location of the Armijo Route where it crossed the Colorado River.



Map 4.1 Segment A

Along Segment A, the SPAC focused on a series of sites occurring on the proposed LPP pipeline route, but there was neither time nor funds to study the extensive proposed new power line areas to the south of the pipeline or the proposed access road upgrades.

4.2.1 Glen Canyon Water Takeout Point Site Overview

This is the physical location where water from Lake Powell is taken from this hydrological system on the mainstream of the Colorado River and transferred to the St. George, Utah, area that is in the Virgin River hydrological system. This system eventually flows back into the Colorado River hydrological system and is then pumped uphill to Cedar City, Utah, where the water now resides in the Great Basin hydrological system.

Site Significance and Components

Glen Canyon Water Takeout Point										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.41	A. If important in the PAST, why was it important?	11	7	7	9	2	5	4	6
Present:	4.18	B. If important TODAY, why is it important?	10	7	6	8	3	6	4	4
Future:	4.55	C. If important in the FUTURE, why will it be important?	11	8	8	7	4	6	3	3

4.2.2 White Rocks—Sand Mesa Site Overview

This is a large but isolated, white, sandstone butte or small mesa. The viewscape from even the foot of this butte is spectacular.

Site Significance and Components

White Rock—Sand Mesa										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.40	A. If important in the PAST, why was it important?	6	8	7	5	2	6	2	2
Present:	4.00	B. If important TODAY, why is it important?	5	7	6	5	3	6	3	2
Future:	4.30	C. If important in the FUTURE, why will it be important?	6	7	6	5	3	7	3	1

4.2.3 White Sandstone Rock Site Overview

This is a tall and isolated white sandstone butte or small mesa. The viewscape from even the foot of this butte is spectacular.

Site Significance and Components

White Sandstone Rock										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.40	A. If important in the PAST, why was it important?	5	8	7	7	4	6	4	4
Present:	3.89	B. If important TODAY, why is it important?	5	7	8	5	5	7	2	3
Future:	4.20	C. If important in the FUTURE, why will it be important?	6	8	8	6	6	7	4	3

4.2.4 Kavaicuwac Cultural Landscape Overview

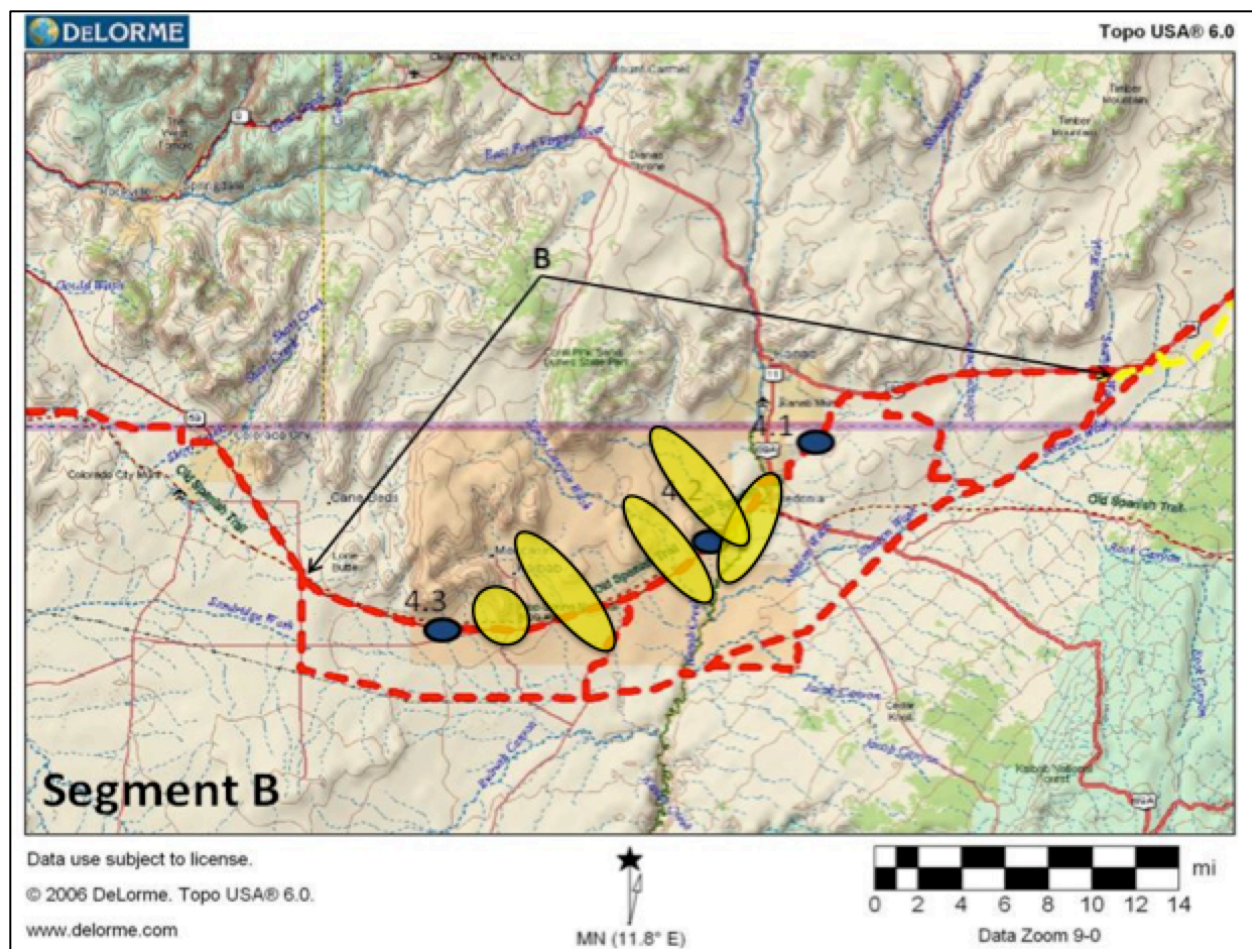
The Kavaicuwac Cultural Landscape (as it is discussed here) involves a pilgrimage trail—also known as a Puha Po—that begins at a point where the LPP proposal crosses the Paria River and extends to the west and north along the proposed route up Five Mile Valley to approximately Five Mile Spring, where the cultural landscape continues up Sand Gulch, past Trail Map Rock to Kavaicuwac Paayuxwitse and then on to the top of Kavaicuwac. The Puha Po also functions in reverse, back to a point of origin. This landscape has a number of distinct places and cultural resources, each of which are culturally important in themselves and together constitute this cultural landscape.

Site Significance and Components

Kavaicuwac Cultural Landscape										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.67	A. If important in the PAST, why was it important?	10	11	11	10	6	10	9	3
Present:	4.45	B. If important TODAY, why is it important?	11	11	10	8	5	9	8	1
Future:	4.58	C. If important in the FUTURE, why will it be important?	10	10	10	9	6	9	9	4

4.3 Segment B

Segment B begins at Puha'gant Kanihype and continues to where it turns south just before Kanab, Utah. The segment travels north of Fredonia, Arizona, and continues west along Highway 89 where it crosses the Kaibab Indian Reservation. Then Segment B joins the southern alternative, Segment C, near Cane Beds. Much of the proposed route is flat and open land. The route is near Kwanatsikani when passing Fredonia, Arizona. Special plant communities are found just before Fredonia, Arizona, and sand dunes are crossed on the Kaibab Indian Reservation (see Map 4.2).



Map 4.2 Segment B

During the 2011 ethnographic study, the SPAC (2011) identified three sensitive areas along this route, but many others were identified during the Class III archaeology study. Time, funding, and private land access problems prevented many of these sites from being visited and studied by the SPAC. Only two of the more than thirty recorded archaeology sites on the Kaibab Indian Reservation were studied because of confidentiality concerns. One large ceremonial area was not discussed.

Members of the SPAC continued to document Southern Paiute cultural places along the LPP routes. Along Segment B, the SPAC noted five more culturally sensitive areas. The exact locations of these places are masked by the yellow ovals in Map 4.2. During the 2012 and 2017 field sessions, the SPAC did not fill out place evaluation criteria forms so that data are not available for those cultural areas (SPAC 2012; Stoffle et al. 2017).

4.3.1 Sego Lily Camp Site Overview

This is a large area where Sego Lilies grow but also where a variety of cultural resources occur.

Site Significance and Components

Sego Lily Camp										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.27	A. If important in the PAST, why was it important?	10	11	10	3	4	5	5	3
Present:	4.00	B. If important TODAY, why is it important?	8	11	11	3	5	7	3	2
Future:	3.82	C. If important in the FUTURE, why will it be important?	6	10	7	2	5	4	4	4

4.3.2 Kwanatsikani Site Overview

A dramatic steep sided large butte or small mesa is associated with an erosion slope of fine soil and sand dunes that are covered with plants and animals. The viewscape is spectacular.

Site Significance and Components

Kwanatsikani										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.58	A. If important in the PAST, why was it important?	5	9	7	5	8	7	6	3
Present:	4.08	B. If important TODAY, why is it important?	7	10	10	5	6	7	6	3
Future:	4.08	C. If important in the FUTURE, why will it be important?	7	9	9	3	4	7	3	3

4.3.3 Calf Pasture Village Site Overview

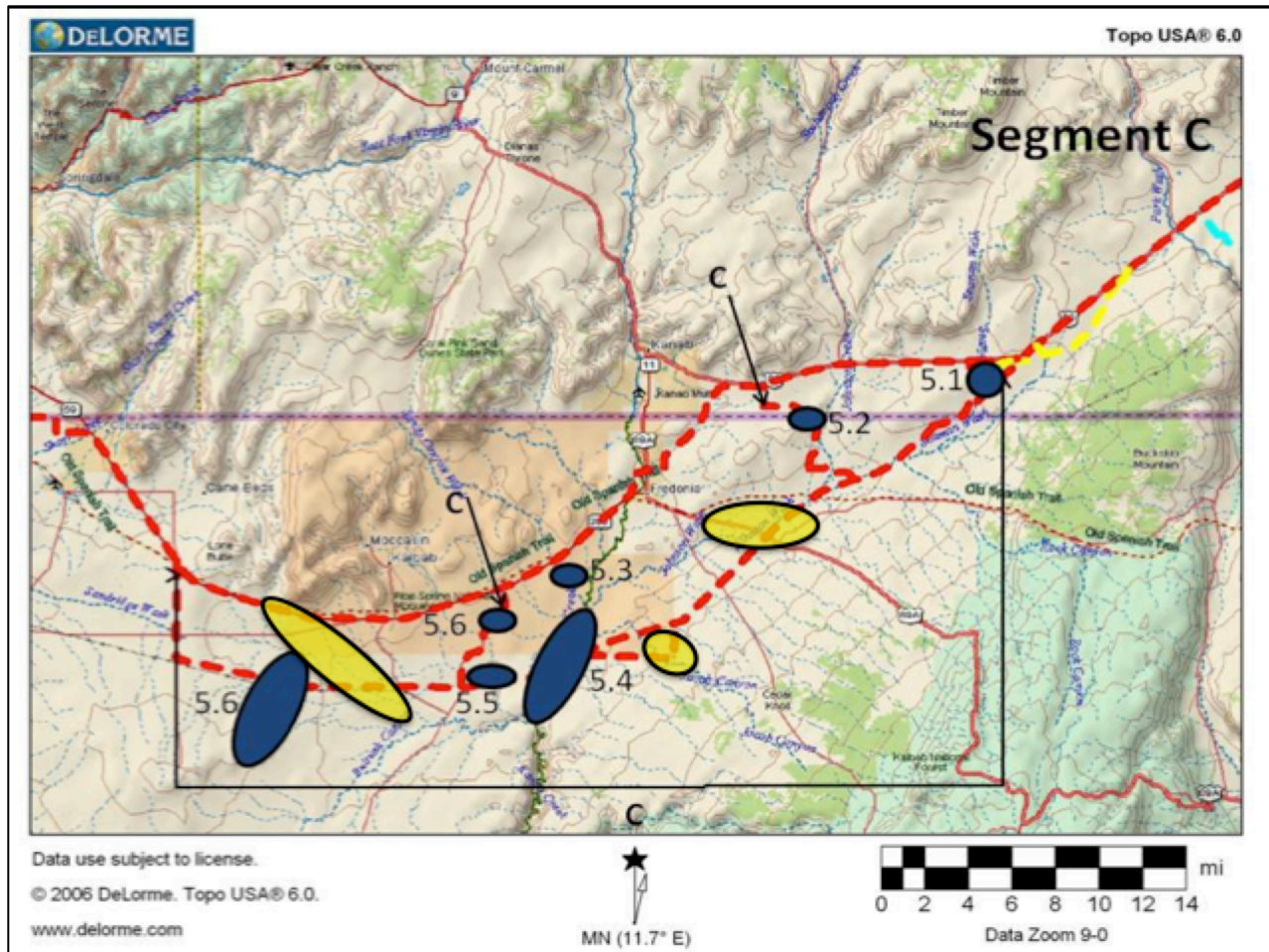
This is a large, flat area below the Vermillion Cliff containing a great variety of resources.

Site Significance and Components

Calf Pasture Village										
	Site Score:		Water	Plants	Animals	A Source of Puha (Power)	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.42	A. If important in the PAST, why was it important?	9	12	12	3	7	6	3	2
Present:	3.75	B. If important TODAY, why is it important?	7	11	10	3	7	7	2	2
Future:	3.55	C. If important in the FUTURE, why will it be important?	7	11	11	2	7	5	2	3

4.4 Segment C

Segment C is the southern alternative, which begins at Puha'gant Kanihype but turns south of Highway 89 to travel to the west below the Kaibab Paiute Indian Reservation. Segment C subsequently rejoins Segment B near Cane Beds located just east of Colorado City, Arizona. This segment crosses a diverse topography that has a large variety of plant and animal communities.



Map 4.3 Segment C

Due to the diverse range of ecology that is crossed by this segment, the SPAC identified and discussed a number of complex cultural landscapes and archaeology sites. Still, there were portions of this segment that were not visited due to access difficulties.

Members of the SPAC continued to document Southern Paiute cultural places along the LPP routes. Along Segment B, the SPAC noted three more culturally sensitive areas. The exact locations of these places are masked by the yellow ovals in Map 4.3. During the 2012 and 2017 field sessions, the SPAC did not fill out place evaluation criteria forms so that data are not available for those cultural areas.

4.4.1 Ipa Cultural Landscape Overview

This is an area set some distance south of the Vermilion Cliffs that has its own small escarpment that exposes a variety of sandstone layers. The landscape has a spring, which served as the water supply for a variety of activities over thousands of years. The landscape has three major components, each of which is culturally significant in its own right.

Site Significance and Components

Ipa Cultural Landscape										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.67	A. If important in the PAST, why was it important?	11	12	12	9	7	8	10	2
Present:	4.00	B. If important TODAY, why is it important?	9	10	10	7	7	9	6	2
Future:	4.25	C. If important in the FUTURE, why will it be important?	8	11	11	7	10	8	6	3

4.4.2 Eight Mile Gap Site Overview

This area is located south of the Vermillion Cliffs at a break in a second set of small escarpments. Major hydrological drainage flows through the area.

Site Significance and Components

Eight Mile Gap										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.50	A. If important in the PAST, why was it important?	8	12	12	9	8	7	6	3
Present:	4.25	B. If important TODAY, why is it important?	6	11	10	7	9	8	4	3
Future:	4.13	C. If important in the FUTURE, why will it be important?	7	12	11	6	8	7	5	2

4.4.3 Two Story Community Site Overview

This is a large archaeological site located on the Kaibab Paiute Indian Reservation.

Site Significance and Components

Two Story Community Site										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	3.78	A. If important in the PAST, why was it important?	5	8	8	2	5	5	3	1
Present:	3.67	B. If important TODAY, why is it important?	3	7	6	1	6	4	1	2
Future:	3.67	C. If important in the FUTURE, why will it be important?	3	6	6	1	6	3	1	2

4.4.4 Kanav'uipi Cultural Landscape Overview

This is a large cultural landscape located on a major waterway, which has its origins in mountains to the north, and its mouth on the Colorado River to the south.

Site Significance and Components

Kanav'uipi Cultural Landscape										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.68	A. If important in the PAST, why was it important?	9	9	9	10	6	9	7	2
Present:	4.64	B. If important TODAY, why is it important?	8	8	9	9	6	8	7	2
Future:	4.60	C. If important in the FUTURE, why will it be important?	8	9	9	10	6	8	7	3

4.4.5 Enugwuhype Site Overview

Low sandstone ridges occur at the edge of an ancient hydrological system in a now arid landscape that once supported richer fauna and flora.

Site Significance and Components

Enugwuhype Site										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.30	A. If important in the PAST, why was it important?	7	9	6	4	6	5	4	2
Present:	4.00	B. If important TODAY, why is it important?	6	9	6	4	6	5	4	3
Future:	3.78	C. If important in the FUTURE, why will it be important?	4	8	5	4	4	4	1	4

4.4.6 Tuweep Po Site Overview

A series of medium, tall sandstone cliffs slope off for miles into lower and lower sandy grasslands with abundant antelope.

Site Significance and Components

Tuweep Po										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.09	A. If important in the PAST, why was it important?	3	11	10	4	7	5	3	3
Present:	4.00	B. If important TODAY, why is it important?	3	10	7	3	8	4	1	1
Future:	3.90	C. If important in the FUTURE, why will it be important?	4	11	8	3	8	5	3	2

4.4.7 Wutiviungkunt Cultural Landscape Overview

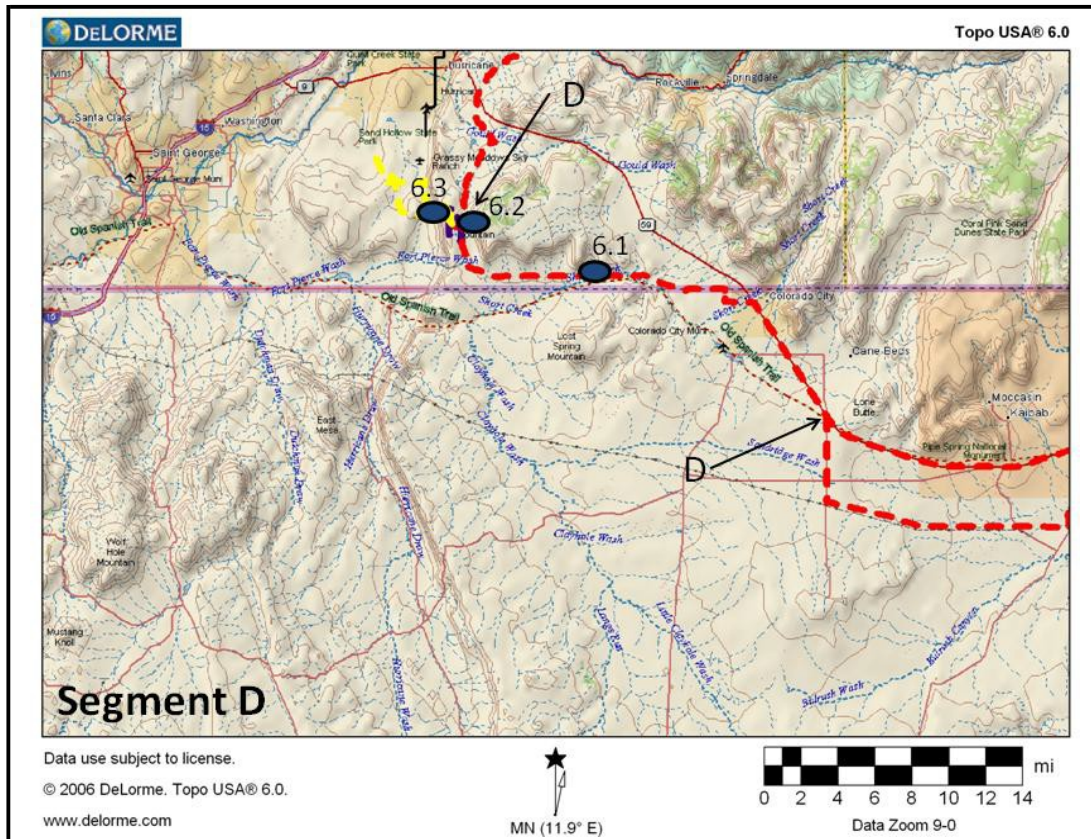
This is a large cultural landscape located on a north-south series of ridges and buttes rising out of grassland plains. The uplift of the escarpment creates a wetter microclimate for plants and animals as well as a point of ceremonial use. There are four distinct place elements in this landscape. Each element is culturally significant in its own right but together they contribute to the landscape.

Site Significance and Components

Wutiviungkunt Cultural Landscape										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.50	A. If important in the PAST, why was it important?	10	11	11	10	6	10	9	4
Present:	4.50	B. If important TODAY, why is it important?	10	12	11	9	8	12	8	2
Future:	4.33	C. If important in the FUTURE, why will it be important?	11	12	12	9	7	11	7	2

4.5 Segment D

Segment D begins at Cane Beds (the juncture of Segments B and C) and proceeds west to Gould's Pond. As the proposed pipeline turns due west near Colorado City, Arizona, it enters heavily eroded areas that make access to the study area extremely difficult. In general, the erosion derives from the mountains to the north and moves due south. The proposed pipeline transects these erosion gullies, some of which are up to forty feet deep. Segment D ends at the pipeline water storage ponds or lakes. New ponds are proposed to be located above and below the Hurricane Cliffs. The pipelines from the lower ponds to Sand Hollow Reservoir were not studied due to lack of time during the 2011 study.



Map 4.4 Segment D

The SPAC believes that there are many more sites of cultural sensitivity in this segment but access and funding problems restricted visits to desired areas.

4.5.1 Corncob Rock Shelter Site Overview

A small rock shelter is perched at the base of a high sandstone cliff. A nearby dry creek was once wet enough for farming.

Site Significance and Components

Corncob Rock Shelter										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.10	A. If important in the PAST, why was it important?	3	8	7	4	8	6	4	1
Present:	3.60	B. If important TODAY, why is it important?	5	8	8	3	6	6	3	2
Future:	3.70	C. If important in the FUTURE, why will it be important?	5	8	7	3	7	6	3	2

4.5.2 Gould's Pond Basin Site Overview

This area is located at the top of the Hurricane Cliff and near a volcanic cut in the cliff face. It is a naturally occurring basin that holds water and spills over the cliff face when full.

Site Significance and Components

Gould's Pond Basin										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.10	A. If important in the PAST, why was it important?	5	9	8	6	5	7	5	2
Present:	4.00	B. If important TODAY, why is it important?	4	9	8	5	5	8	3	1
Future:	4.30	C. If important in the FUTURE, why will it be important?	3	8	7	6	4	8	4	3

4.5.3 The Bottom of Hurricane Cliffs Drop-Off Point Site Overview

This sandy grassland (now overgrazed) is located below the volcanic cut in the Hurricane Cliffs below Gould's Pond.

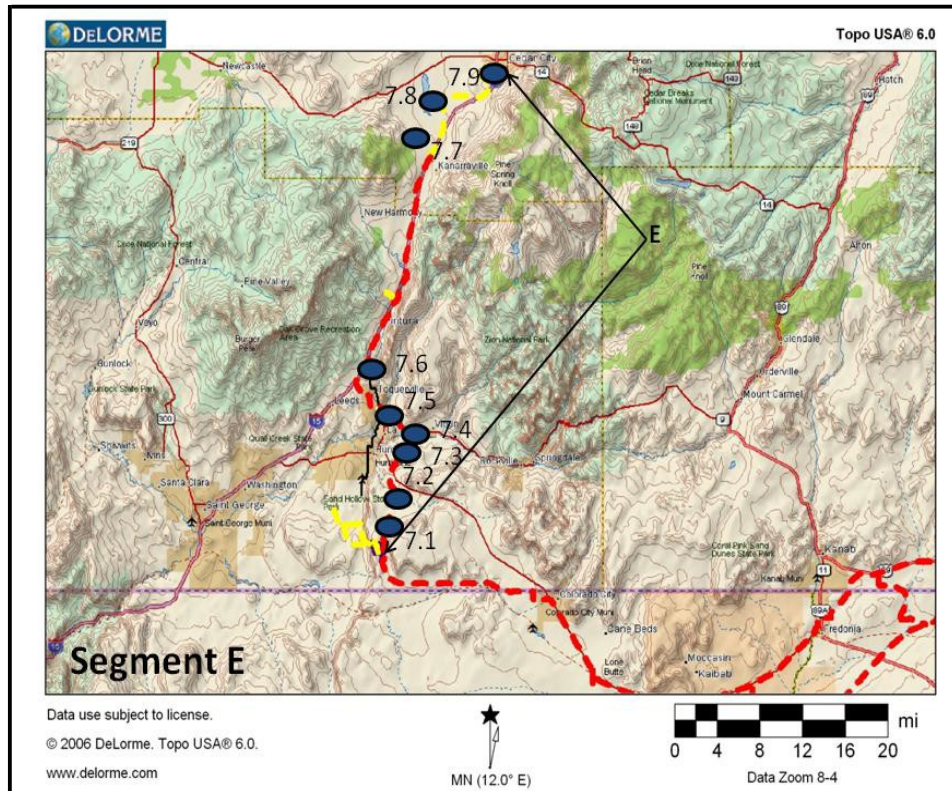
Site Significance and Components

The Bottom of Hurricane Cliffs Drop-Off Point										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.10	A. If important in the PAST, why was it important?	4	8	8	4	0	7	2	2
Present:	4.00	B. If important TODAY, why is it important?	4	9	9	4	3	8	3	2
Future:	4.00	C. If important in the FUTURE, why will it be important?	4	8	7	4	2	8	4	2

4.6 Segment E

Segment E is a new pipeline that begins at Gould's Pond and extends generally to the north arriving at Cedar City, Utah. Two possible arrival points near Cedar City were discussed during this study, so both are incorporated into this report.

The LPP proposal passes through very broken and difficult to access areas throughout this segment. Some areas can only be accessed on foot along difficult trails. Nephis Twist is a prime example of a segment that could not be accessed by the SPAC. Portions of the Ash Creek Canyon were similarly difficult to access. The SPAC noted a desire to explore fully any potential impacts the LPP proposal would have on a ceremonial trail from the Hot Springs at Hurricane to the Zion area.



Map 4.5 Segment E

4.6.1 Area of Critical Plant Habitat Site Overview

A rich assortment of plants (and subsequently animals) occupies the rich valley soils between volcanic and eroding sandstone mountains.

Site Significance and Components

Area of Critical Plant Habitat										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.60	A. If important in the PAST, why was it important?	4	10	8	5	7	5	2	1
Present:	4.22	B. If important TODAY, why is it important?	4	10	8	4	5	5	2	1
Future:	4.22	C. If important in the FUTURE, why will it be important?	4	10	8	4	6	4	5	2

4.6.2 Gould Creek Volcanic Wash Crossing Site Overview

This area is an old volcanic magma flow. It has been exposed due to erosion caused by an active stream.

Site Significance and Components

Gould Creek Volcanic Wash Crossing										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.30	A. If important in the PAST, why was it important?	7	8	7	2	5	6	3	2
Present:	4.00	B. If important TODAY, why is it important?	8	9	8	2	6	5	3	1
Future:	4.22	C. If important in the FUTURE, why will it be important?	8	9	8	2	5	5	2	2

4.6.3 Knoll Hill Site Overview

This small hill affords a panoramic view of a small canyon created by the Virgin River.

Site Significance and Components

Knoll Hill										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.20	A. If important in the PAST, why was it important?	9	9	8	3	8	6	2	1
Present:	3.90	B. If important TODAY, why is it important?	9	9	8	2	7	7	2	1
Future:	3.90	C. If important in the FUTURE, why will it be important?	9	9	8	2	7	6	2	2

4.6.4 The Virgin River Crossing Site Overview

At this site, the Virgin River passes through a small canyon.

Site Significance and Components

The Virgin River Crossing										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.27	A. If important in the PAST, why was it important?	11	10	8	4	6	6	2	2
Present:	3.82	B. If important TODAY, why is it important?	10	10	8	4	6	5	3	1
Future:	3.70	C. If important in the FUTURE, why will it be important?	10	9	9	4	5	5	2	2

4.6.5 Nephis Twist Site Overview

Complex bending and folding created a topographical base for zigzag erosion. A narrow canyon was formed.

Site Significance and Components

Nephis Twist										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.09	A. If important in the PAST, why was it important?	6	9	7	4	3	7	1	2
Present:	3.64	B. If important TODAY, why is it important?	6	8	7	2	3	7	1	1

Future:	3.55	C. If important in the FUTURE, why will it be important?	7	9	8	2	3	7	1	1
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4.6.6 Ash Creek Canyon Site Overview

Volcanic lava flows created an almost impassible landscape. Erosion has caused a formation of a deep canyon that has become the path of animals and humans alike.

Site Significance and Components

Ash Creek Canyon										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.50	A. If important in the PAST, why was it important?	11	10	9	5	7	8	3	1
Present:	4.18	B. If important TODAY, why is it important?	10	9	9	4	7	6	3	1
Future:	4.18	C. If important in the FUTURE, why will it be important?	11	10	10	4	6	7	2	3

4.6.7 Harmony Mountains' Foothills Site Overview

Near the foot of a long north-south trending mountain range are sandy slopes covered with plants and animals.

Site Significance and Components

Harmony Mountains' Foothills										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.50	A. If important in the PAST, why was it important?	8	8	8	3	6	8	3	2

Present:	4.20	B. If important TODAY, why is it important?	8	9	8	3	6	8	4	2
Future:	4.20	C. If important in the FUTURE, why will it be important?	9	9	8	3	6	8	3	2

4.6.8 Quitchapah Creek and Lake Site Overview

High mountains attract moisture that then flows through small streams to the east and into grassland where a natural low area permits the formation of a large shallow lake. This water supports all kinds of life.

Site Significance and Components

Quitchapah Creek and Lake										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.40	A. If important in the PAST, why was it important?	10	10	9	2	6	6	4	1
Present:	4.20	B. If important TODAY, why is it important?	10	10	10	2	6	7	3	1
Future:	4.30	C. If important in the FUTURE, why will it be important?	10	10	10	2	7	6	3	3

4.6.9 Cross Hollow Hills Site Overview

These large rounded hills are located just beyond the flanks of high mountains.

Site Significance and Components

Cross Hollow Hills										
	Site Score:		Water	Plants	Animals	A Source of Puha	Evidence of Previous Indian Use	Geological Features	A Place of Ceremony	Other
Past:	4.09	A. If important in the PAST, why was it important?	7	10	9	7	8	8	2	2
Present:	4.00	B. If important TODAY, why is it important?	8	11	9	5	8	7	3	3
Future:	4.18	C. If important in the FUTURE, why will it be important?	9	10	9	4	8	7	2	1

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